

The Mining Journal

AND COMMERCIAL GAZETTE.

No. 32.—Vol. II.]

LONDON: SATURDAY, APRIL 2, 1836.

[PRICE 7D.]

SHARES IN MINES.—FOR SALE (only a few remaining), in the following well-conducted Mines, but which, not being speculative, are not so generally known to the public, and are therefore offered at the following low prices:—
Tin-croft, at £21 per share.
Reliance, at £21 per share.
Tamar Consoles 4 do.

And shares in most of the English Mines and Railways, at the office of CHARLES MANN, Share Broker, 7, Old Broad-street.

TO BE SOLD BY PRIVATE CONTRACT,

BY MR. GRILLIS, REDRUTH.
The following SHARES in MINES, viz.—
One 64th in Wheal Providence.
One 64th in Wheal Tolgus.
One 100th in Copper Bottom.
One 128th in East Pool.
One 80th in Levant.
Ten 6,000th in West Wheal Jewel.
One 90th in Polgoth.
All letters must be post-paid.

Redruth, March 31, 1836.

TREGOLLAN COPPER MINING COMPANY.

A Letter relating to the above-named Company, with the name of "Bennat Johns" attached thereto, having appeared as an advertisement in the last week's *Mining Journal*, the Directors deem it proper to state that the allegation contained therein is UTTERLY FALSE, and that they are taking active measures to discover and prosecute the parties who have conspired to circulate the falsehood by publishing the pretended letter, the manuscript of which is not in the handwriting of Mr. Bennat Johns.

To the Editor of the Mining Journal.

ST. JOHN DEL REY MINING COMPANY.—SPECIAL MEETING.

The proprietors in this Company are requested to meet at this office, on TUESDAY, the 5th day of April next, at Two o'clock precisely, to receive a communication from the Directors.

J. LUCKOMBE, Secretary.
8, Tokenhouse-yard, Lothbury, March 30.

WHEAL BROTHERS MINING COMPANY.—The Directors

herewith give Notice, that a SPECIAL GENERAL MEETING of the Shareholders will be held on Thursday, the 14th April, at twelve for one o'clock precisely, at the City of London Tavern, Bishopsgate-street, for the purpose of receiving a Report of the state of the Mine, and an explanation of the reasons for postponing the Dividend for the present.

26, New Broad-street, March 19.

NEW SOUTH HOVE MINING COMPANY.

An especial GENERAL MEETING of the Shareholders will be held at the offices of the Company on THURSDAY, April 7, 1836, at Twelve for One o'clock precisely, for the purpose of receiving a Report on the present state of the works; and of determining on the propriety, or otherwise, of disposing of a portion of the mining set, situated at a considerable distance from Tinnell, and containing lodes, the working of which will not at all interfere with the operations in progress at that place.

G. EATON, Secretary.
N.B. The Shareholders who have not yet exchanged their certificates are requested to send them to the office for that purpose as early as possible.

UNION GOLD MINING COMPANY.—

At a Meeting of the Board of Directors of the above Company, held at their office in Philadelphia, on the 22d January, 1836, it was resolved that a further Call of Five Dollars per share be made upon the holders of the said shares in the United States, and £1 2s. 6d. per share upon the holders of the said shares in England, and that Thirty Days' Notice be given. Notice therefore is hereby given, that a moiety of such CALL, viz. 11s. 3d. per share, is required to be paid at the banking-house of Messrs. Hankey, Fenchurch-street, between the hours of eleven and two, on or before Saturday, the 30th day of April next, and the other moiety on or before Tuesday, the 5th day of July next. Holders of Scrip Shares are requested to leave them one day to have the said payments inscribed thereon.

DICKSON and BELL, Agents.
Office of the Union Gold Mining Company,
13, Lombard-street, March 30.

MINERS' LOCAL HOSPITALS.—NOTICE IS HEREBY

GIVEN, that in consequence of the undermentioned benevolent suggestions of Mr. STREET to Captain CREASE, measures are now adopting for the establishment of LOCAL HOSPITALS, in order that the relief suggested may be afforded. A Committee will be formed to carry the object into effect, and the arrangements will be so completed as to prevent any interference with the Medical Department of Mines. Suggestions are requested to be addressed (post paid) to Mr. GEORGE CONNAN, Trow.

DEAR SIR,—In the course of many years of extensive practice as a surgeon, adjoining one of the principal mining districts in this county, I have often had occasion to regret the serious inconveniences to which the labouring miner is but too frequently exposed, and which a trifling outlay on the part of the spirited adventurers might very easily remedy.

Knowing you are anxious for the welfare and comfort of the miner, on whose exertions the prosperity of the mine so much depends, besides being yourself greatly interested in the mines on the Duchy lands, I am induced to submit to your notice the following hints, on a subject which strikes me as being of considerable importance, and highly deserving the attention, not only of the enterprising adventurers with whom you are more immediately concerned, but of others engaged in mining generally.

I may premise, what is already, perhaps, known to you, and universally admitted, that more men die from their wounds after a battle on land than after a sea-fight. The reason of this is obvious, because in the former case it is not uncommon, but often necessary, to have the wounded conveyed for many miles before they can be attended to by the surgeons, in consequence of which some die from the fatigue of the journey, others from hemorrhage, or from a high state of inflammation brought on by the motion of the carriage over bad roads, &c. On board ship the case is widely different; all the above inconveniences are avoided—the surgeon is promptly in attendance, and the result is, as might *a priori* have been anticipated, his exertions to save life in desperate cases are more often crowned with success.

On this ground, therefore, would I beg to suggest to you the necessity of erecting a proper place for the purpose of hospitals in the immediate vicinity of large mines. The cost of such erections, I am quite sure, would be amply compensated by the great benefits which would accrue from it to those who, from the very hazardous nature of their employment, are constantly liable to accidents of a more or less dangerous character. By my time and leisure permit, I could point out to you a number of instances illustrative of my position, which I think would clearly show you, that in nine cases out of ten, if there had been such an establishment at hand as the one I have suggested, the lives of many valuable and experienced miners might have been saved.

Let me only call your attention for a moment to a case which not unfrequently occurs. Perhaps five or six men are all wounded at the same time, and are conveyed to their respective cottages, situated perhaps three, four, or five miles from where the accident happened, and in different directions from the mine. Now mark the consequence:—before the surgeon can attend, a considerable time must elapse; he perhaps finds, too, that what had been at first only a simple fracture, has from various causes incident on removal become a compound one, and the life of the miner thereby in jeopardy. Should it be necessary to operate on any of the men, I need scarcely tell you, that the laborer of a miner's cottage is a very unfit place for the purpose. It is generally so small and dark, that the most skilful operator has to labour under great disadvantages; and, besides, there is a fearful odour of our mines will be long permitted to continue. It behoves the neighbours to aid in mitigating the sufferings of their industrious fellow men; and it will afford me great satisfaction if this communication should have the effect of inducing you to set the generous example. All that I consider necessary for the purpose would be a moderate-sized well-ventilated room, capable of containing eight or ten beds, with another room, well lighted, for the performance of any surgical operation; and a woman, to take care of the patients and act as nurse. When an accident occurred, and the sufferers would immediately be conveyed to the hospital, and attend to the arrival of the surgeon, who would thus have it in his power to attend to the worst cases in the first instance. Those whom he considered to be severely injured would of course remain in the hospital, while the others, whose cases he deemed not to be of a serious nature, he could give directions for having removed to their own homes. The advantages of such an arrangement, I think, are apparent; and, for the sake of the poor hard-working miner, I entreat you to put it in practice. A house, large enough to contain eight or ten beds, would serve for three or four miles. I am, dear sir, yours truly,

Penryn, Feb. 22, 1836. S. S. STREET.

To Captain CREASE, R.N.

THE THAMES-TUNNEL, opposite the end of Old Gravel-lane, Wapping, but on the Surrey side of the River, near Rotherhithe Church.

THE WORKS ARE NOW IN PROGRESS.

NOTICE IS HEREBY GIVEN, that the Public may view the Tunnel every day (Sundays excepted) from Nine in the morning until Nine at night, upon payment of One Shilling for each person.

The Archway is brilliantly lighted with oil-gas, and the Eastern Arch is open to the inspection of visitors, in addition to the Western one.

The work, which extends upwards of 600 feet under the bed of the River, is perfectly dry, and the descent by a safe and easy staircase.

By Order, J. CHARLIER, Clerk of the Company.

N.B.—There are conveyances to and from the Tunnel, by an Omnibus, every half-hour from Gracechurch-street, and three times daily from Charing Cross, and the Green Man and Seal, Oxford-street, also by the Greenwich and Woolwich Steam Boats, from Hungerford Market, Queenhithe, and Fresh Wharf, at 2, 11, 2, and 4 o'clock.

Wallbrook-buildings, Wallbrook, April 1, 1836.

THE MINING REVIEW.

The forthcoming Number of this work will unavoidably be delayed until the FIRST of MAY, in consequence of the numerous WOOD-CUTS required for illustrating several Original Papers; the publication of the "MINING JOURNAL" (directing its attention particularly to Public Companies) having determined the Editor to render the MINING REVIEW more exclusively devoted to the Sciences, and, so far as is practicable, to render it unique by numerous Engravings and Wood-cuts.

THE MINING JOURNAL AND COMMERCIAL GAZETTE.

The only Newspaper exclusively devoted to Geology, Mineralogy, and Metallurgy; combining therewith Reports of the Proceedings of Public Companies, Correspondence from the Mining Districts, Sales of Ores, Prices of Shares, Mines, Railways, Canals, &c., with Parliamentary Summary, London Gazette, and much original and interesting Scientific Intelligence, &c., is published every Saturday, and may be had of all newsvendors in town and country.

Office, 12, Gough-square, Fleet-street, London.

COAL IN THE COUNTY OF DURHAM.

A most desirable tract of Royalty, containing by estimation 1,200 acres, or thereabouts; which, from its proximity to the Newburn, Hebburn, and Jarrold Collieries is confidently expected to contain the same valuable seams of Coal which are now so extensively wrought in these collieries. The centre of the lands, which offer eligible places for sinking the pit or pits, are situated within five miles of the River Tyne, at the Stanhope and Tyne Railway Company's Shipping Barges, at South Shields, and are intersected by that company's railway.

An eight-inch seam of coal has been cut through at a slight depth, which sufficiently testifies to the value of the property. For particulars apply to Mr. Thomas Fowles, Diplo, by Gateshead; Mr. Thomas Davison, Sedgfield; Mr. A. Stoddart, South Shields; Mr. John Bell, land-surveyor, Gateshead; or to Messrs. Stokes, Hollingworth and Tyerman, Solicitors, Cateaton-street, London.

GLAMORGANSHIRE.—TO BE LET ON LEASE,

(Fourteen Miles from the improving Port of Cardiff.)

ONE THOUSAND TWO HUNDRED ACRES

(In a ring fence)

OF HARD BITUMINOUS COAL.

Mostly level free, and now partly open, with Tramroad and Canal communication to the Port, where it would be delivered at about 3s. 9d. per ton, including royalties, cartage, and haulage interest of capital, (which would not exceed 3,000l. to bring down 200 tons per day), and all other charges.

There are Eighteen Workmen's Houses, Agent's House, Smithies, and other conveniences attached. The situation would be favourable to Manufacturers requiring good and cheap Coal, costing on the spot about Four Shillings per Ton. Fifty Tons per day may be got immediately, 100 Tons in less than six months, and 200 Tons in less than twelve months.

There is a river running through the middle of the Property, with about twenty feet perpendicular fall. There are good situations for Powder Mills, Pyrotechnous Acid Manufactories, &c.; the country abounding with Wood, Splendid Quarries of Stone for Building, and good and cheap Lime.

None but persons of known responsibility will be treated with. Apply, personally, to Mr. Gregory, Solicitor, 12, Clement's Inn, London; or Mr. E. P. Richards, Solicitor, Cardiff, who will appoint a person to show the Premises.

PLYMOUTH IRON COMPANY.

Applications for Shares in the above Company will not be received after Thursday the 7th day of April next.

By Order, BAXENDALE, TATHAM, UPTON, and JOHNSON.
No. 7, Great Winchester-street, Broad-street, March 31, 1836.

WILTS AND DORSET BANKING COMPANY.

Capital £300,000, in 20,000 shares of £15 each.

GENERAL MANAGERS.

Messrs. John Cussey, Salisbury; Henry James Bracher, Salisbury; John Hayward, Devizes; William Glynne, Junr, Dorchester.

CENTRAL BANK, SALISBURY.

DISTRICT MANAGERS.

Blandford—John S. Ianham, Manager; Bradford—James Bell, Manager; Bridport—John Coppock, Agent; Chippenham—Broome Pinner, Man.; Christchurch—John Hays Dunlop, Man.; Dorchester—James W. Scott, Manager; Dorchester—G. M. Bell, Manager; Dorchester—H. M. Shorto, Agent; Dorchester—G. M. Bell, Manager; Dorchester—H. M. Shorto, Agent.

LONDON BANKERS.

The Directors have much satisfaction in announcing to the Shareholders, and to the public generally, that the old-established house of Messrs. Robins, Young, and Lane, Bankers, Malmesbury, will become merged into the Company on the 11th of April next, and that the business will continue to be transacted by Thomas Lane, Esq., acting partner in the above firm, as the Company's Manager in Malmesbury.

By Order of the Board, W. S. WILSON, General Manager.

Salisbury, April 2, 1836.

THE RATCLIFFE & EAST METROPOLITAN EQUITABLE

GAS COMPANY.

Capital £150,000, in 30,000 shares of £5 each. Deposit £1 per share.

This Company has been formed for the purpose of supplying the inhabitants of the east end of the metropolis with pure gas, upon fair and equitable principles. The Directors are assured, from the calculations of practical men, that they can furnish a superior article at thirty per cent. under the price at present paid, and at the same time ensure a liberal dividend for the capital employed.

In order to remove a monopoly only accessible to wealthy individuals, the Directors have, at the desire of several gentlemen interested in the undertaking, reduced the amount of shares from £25 to £5 each, that the inhabitants of Ratcliffe and the east end of the metropolis may equally become shareholders, and generally interested in the undertaking.

The Directors reiterate an existing report as to their connection, directly or indirectly, with any other company. The plans are in a forward state, and the works will be speedily erected.

The Parliamentary bill is in a state of immediate forwardness; the customary forms will be strictly complied with. The bill will contain the usual clause restricting the shareholders to the amount only of their respective shares.

The Directors are desirous to reserve the remaining shares for consumers and holders of property in the eastern districts.

Applications for shares, which are now allotting, to be made, post paid, to the Secretary, at the Company's offices, 5, Adam's-court, Old Broad-street; or to J. Vickery, Esq., solicitor, 13, New-lane, Strand.

THE SOUTH LONDON UNION RAILWAY.

Capital £200,000, in 12,000 shares of £16 6s. 6d. each.

PROVISIONAL COMMITTEE.

George Brett, Esq., Robert Monro, Esq., Sir Thomas Roberts, Bart., Colonel Henderson, Esq., Josiah Towne, Esq., William Hill, Esq., James Whitechurch, Esq.

With power to add to their number.

BANKERS.—Messrs. Spooner, Attwood, and Co., Gracechurch-street; Messrs. Wright and Co., Henrietta-street, Covent-garden.

SOLICITORS.—Messrs. Faw, Hamilton, and Faw, Esq., Francis Giles, Esq., Esq., T. Marsh Nelson, Esq.

The South London Union Railway, to be constructed on the well-known principle of a Viaduct, is intended to commence at the termination of the London and Greenwich Railway near London Bridge, passing in its course the Southwark, Blackfriars, the Waterloo, and Westminster Bridges, and Vauxhall Gardens, to a depot at or near its western terminus above Vauxhall Bridge, whence it will run into the Southampton Railway now in progress, from which Railways are projected to lead to Dover, Brighton, Portsmouth, and Exeter.

The sources whence the revenue of the South London Union Railway is expected to arise, are not only the goods and passengers' traffic now existing between London and Vauxhall Bridge, but the traffic upon the London and Southampton Railway, and the other lines of Railway, projected to lead thence to Dover, Brighton, Portsmouth, and Exeter, which shall arrive at or depart from the metropolis.

The South London Union Railway will thus form the three first miles of the Railway communication between London and the whole southern coast of England, including not only the ports of Dover, Shoreham, Portsmouth, and Southampton, but also those favourite places of resort, Epsom, Dorking, Brighton, Tonbridge Wells, and the Isle of Wight.

The formation of Docks at Southampton, and the establishment of a steam navigation station at that port, as now projected, will doubtless add considerably to the traffic on this Railway.

A deposit of £1 per share will be required within ten days after the appropriation of the shares, for which an early day will be named, and another £1 per share on the 20th of January, 1837, and it is intended that each shareholder shall receive interest at the rate of four per cent. per annum upon the amount paid up from the date of obtaining the Royal assent to the Bill until the Railway or some part of it is in action.

BIRMINGHAM PLATE GLASS COMPANY.

Capital £200,000, in 8,000 shares of £25 each. Deposit £1 a share.

DIRECTORS.—George Jos. Green, Esq., William Harding, Esq., Samuel Haines, Esq., William Pearson, Esq.

BANKERS.—Bank of Birmingham; Northern and Central Bank of England.

SOLICITORS.—Mr. W. S. Harding; Mr. W. D. Wheeler.

The manufacture of PLATE GLASS has been hitherto exclusively confined to two establishments, one at Newcastle-on-Tyne, and the other at St. Helen's, in Lancashire.

The great and steady profits realised in this branch of manufacture have been long known to those persons who are conversant with the subject.

These considerations, and a large capital being requisite, have led to the recent formation of a similar most respectable company in Liverpool and Manchester, with every chance of a most prosperous result.

Birmingham, however, both from its central situation, affording the speediest and cheapest communication with all parts of the kingdom, and the great facility of obtaining in the neighbourhood all the materials used in the manufacture at a moderate rate, presents unusual advantages for an establishment of this description.

The probable reduction or removal of the government duty, gives every prospect of a very considerable additional profit by the consequent increase of the consumption, and the adoption of the article in every respectable house and shop in the empire.

It is, therefore, proposed, That a Company for the Manufacture of Plate Glass shall be established in Birmingham, to be called "THE BIRMINGHAM PLATE GLASS COMPANY," having a capital of £200,000, divided into 8,000 shares of £25 each.

That each shareholder shall pay a deposit of £1 per share on the allotment, and such further calls (not to exceed £5 per share at any one time), as the Directors may require.

That no shareholder shall be eligible as a director, unless he holds at least twenty shares.

That the formation and management of the Company shall be under the control of the above-named directors, who shall have power to add to their number; and to cause a deed of settlement to be prepared, containing all the usual clauses and provisions, and which each shareholder shall sign, under the penalty of the forfeiture of his shares and deposit after one month's notice.

Applications for shares to be made (if by letter post paid) to the Directors; at either of the Bankers; or at the offices of the Solicitors, Waterloo-st., Birmingham.

Birmingham, March 18, 1836.

FORM OF APPLICATION FOR SHARES.

(Date) _____

Gentlemen,—I apply for _____ shares in the "Birmingham Plate Glass Company," on the conditions of the Prospectus, dated the 14th day of March, 1836.

(Name) _____

(Residence) _____

(Profession) _____

To the Directors of the Birmingham Plate Glass Company.

BIRMINGHAM PLATE GLASS COMPANY.

—MANAGER WANTED.—Any gentleman desirous and fully competent to undertake the superintendence of the manufacture of Plate Glass, and the duties of Manager of this Company, is requested to make immediate application (with references as to qualifications), addressed to the Chairman of the Birmingham Plate Glass Company, at the offices of Mr. W. S. Harding, or Mr. W. D. Wheeler, Solicitors, Waterloo-st., Birmingham.

BIRMINGHAM PLATE GLASS COMPANY.

—The Directors hereby give Notice, that no applications for shares in this Company can be received after the 5th day of April, 1836.

W. S. HARDING } Joint Solicitors.
W. D. WHEELER }

IRISH WASTE LAND IMPROVEMENT SOCIETY.

CAPITAL—£500,000, in 10,000 shares of £50 each.

PATRONS.

Marquis of Downshire, Marquis of Thomond, Marquis of Ormonde, Marquis of Clanricarde, Earl of Shrewsbury and Waterford, Earl of Devon, Earl of O'Neill.

PROVISIONAL COMMITTEES.

Marquis of Clanricarde, Earl of Devon, William Blount, Esq., C. Fitzsimon, Esq., M.P., T. B. Fyler, Esq., Wm. Omsby Gore, Esq., M.P., Henry Handley, Esq., M.P., John Headlam, Esq., M.P., BARRISTERS—Messrs. Ladbroke, King's Bench, and Co., Messrs. Wright and Co., Solicitors—Messrs. Amory and Coles, Three court-street.

SECRETARY—Mr. Dixon Holmes.

The advantages which will accrue to the capitalists employing their money in improving lands in Ireland, has been satisfactorily demonstrated by the practical experiments of the Government, and of individuals, which are particularly evidenced by the Parliamentary Reports.

To which may be added the encouraging reflection, that a benefit would flow to the people of that country, who have no claim of occupation but in the tilage of their land. And hence two great objects will be combined, viz. the profitable investment of money, and the productive employment of the population.

Measures have been already taken to obtain an Act of Parliament for the incorporation of the Society, and for carrying these objects into effect, under such auspices as enable the Committee to entertain every confidence of success.

A deposit of £1 a share is the only sum which will be required until the Act of Parliament has been obtained. The liability of shareholders will be limited by the Act to the amount of their shares, and no further calls will be made at less intervals than three months, and not exceeding at any time five per cent. on each share.

Applications for shares and prospectuses to be made to the Secretary, at Messrs. Amory and Coles, 25, Throgmorton-street; to the Bankers of the Company, at the National Bank of Ireland, 30, Old Broad-street, and 45, Dame-street, Dublin; at the Commercial Bank of Scotland, Edinburgh; at the Bank of Liverpool; the Bank of Manchester; West of England and South Wales District Banks, Bristol; the Banking Company, Leeds; J. W. and C. Rawson and Co., Hull; and Halifax; the Banking Companies, Bradford and Chesterfield; Devon and Cornwall Banking Company, Plymouth; Girard, Gillman and Co., Portsmouth; R. Skellard and Co., Exmouth; Free Bank Union Banking Company, York; M. and M. Meddison, Southampton; Hall, West, and Co., Bristol.

IRISH WASTE LAND IMPROVEMENT SOCIETY.

The Provisional Committee give notice that no applications for shares will be received in London after SATURDAY, April 2, and in the country after SATURDAY, April 9, after which time the shares will be appropriated.

25, Throgmorton-street, March 13. DIXON HOLMES, Secretary.

WOLVERHAMPTON IRON AND WIRE COMPANY.

Capital £20,000, in 1,000 shares of £20 each.

One half to be paid at the time of allotting the shares, and the other portion in £5 calls, of which three months' notice will be given by the Committee prior to each call.

BANKERS.—The Wolverhampton and Staffordshire Banking Company.

MANAGER—Mr. J. W. Hayton.

SOLICITOR—Mr. Foster.

COMMITTEE.

Messrs. Thomas Timmins, Jeremiah Wynn, William Rybon, Henry Crane, John Dixon, Samuel Walker, and John Neve.

SCHAUFFEL'S PATENT HOT-AIR FURNACE FREDER.
By the use of this apparatus, the principle of feeding fire with hot air (hitherto confined to blast-furnaces only), is now extended to all enclosed fire-places, without any aid of mechanical power, the temperature of the feeding-air being raised by absorbing a portion of the waste heat which usually escapes through the chimney; a SAVING OF FUEL is thus effected of 20 to 25 per cent. The apparatus is most simple in its construction—not liable to damage or derangement—erected at a small expense, and its operation is not subject to any attendant disadvantages whatever. It is applicable to the Boiler-Fires of all Steam-Engines, the Furnaces of Breweries, Distilleries, Water-works, Gas-works, Refineries, Potteries, Brick-kilns, Glass-houses, and generally, to all kinds of enclosed fires. A model may be seen at the Gallery of Practical Science, in Adelaide-street, Strand; and an Apparatus, in daily operation, inspected (by permission of the Proprietors) at the College Wharf, near St. Giles, Belvidere-road, Lambeth. Many of these Apparatus have been erected during the last three years on the Continent—are now in full operation, and testimonials of their efficacy are added.
A descriptive Treatise on this system may be had, by applying to Mr. J. H. Florence, 8, New Basinghall-street, to whom all applications for licenses under this patent are to be addressed.

NORTH AND SOUTH JUNCTION RAILWAY.
To connect the DERBY AND BIRMINGHAM and the MIDLAND COUNTIES RAILWAYS, at their point of Junction with the LONDON AND BIRMINGHAM RAILWAY at STONE-BRIDGE and RUGBY, or one of them, with the LONDON AND SOUTHAMPTON RAILWAY, at or near Basingstoke.

PROVISIONAL COMMITTEE.
Richard Austin, Esq.
William H. Beach, Esq.
The Honourable Lord Bolton.
Richard Booth, Esq.
George Brounall, Esq.
Robert Brayne, Esq.
Charles Bricewell, Esq.
Edward Bricewell, Esq.
Timothy Rhodes Cobb, Esq.
John Davis, Esq.
Joseph Gibbons, Esq.
John Hadland, Esq.
William Hadland, Esq.
BANKERS—Messrs. Wright and Co.
SOLICITORS—Messrs. Few, Hamilton, and Few.

A Line of Railway carried South, from the London and Birmingham Railway, appears to be the only link or section wanting, in addition to the lines already in course of construction, or projected, to complete lines of communication by Railway, from Edinburgh and Glasgow on the North, the Mersey on the North-West, the Humber on the North-East, and Exeter and Bristol on the West, with Southampton on the English Channel.

This concentration upon Southampton of lines of communication, extending through the whole of England and part of Scotland, will be duly appreciated upon an attentive consideration of the commercial and maritime facilities afforded by Nature, and now about to be improved by art, in the Harbour of Southampton itself, which is ten miles in length, six miles below and four miles above the Town, of great depth of water, and in breadth from half to three-quarters of a mile. In this harbour, immediately adjoining the Town of Southampton, spacious Commercial Docks will be constructed forthwith, a Company being formed for that purpose, fitted for the accommodation of Merchant Ships of the larger classes, and so arranged with Warehouses as to admit of the important privilege to the Merchant of Warehouses of "special security," an advantage enjoyed at present by the Ports of London and Goole only. The arrangement of the Docks and Warehouses at other Ports not being such as to afford sufficient security for the protection of the revenue to induce Government to confer upon them that character. It may be added, that the Railway will be carried into the very heart of the Docks.

A slight inspection of the Map of England will demonstrate to the Merchant and Manufacturer with Yorkshire, Lancashire, Derbyshire, Nottingham, Northamptonshire, Leicestershire, Staffordshire, or Warwickshire, or with any of the Western Counties, that he will thus be enabled to convey his goods by an easy, cheap, and unbroken line of transit, to a Port nearly in the centre of the South of England, of the easiest access to the English Channel, and at a point free from the dangers of the Downs passage; and although these observations apply with more force to the outward than to the homeward trade, since Liverpool must continue to be the destination of the bulk of the raw material of manufacture, and to a vast extent of other imports, still that portion of the homeward trade intended for use and consumption, in much of the interior of the country through which the several lines of Railway will extend from Southampton, will necessarily be landed at and distributed from that Port.

It is further to be considered, that on the formation of a Railway, as contemplated, from Paris to Rouen and Havre de Grace, this last-mentioned Port being immediately opposite to Southampton, and the only Harbour fitted for commerce on the French coast between Bordeaux and Calais, Southampton must, in such event, command the French trade, or the chief part of it.

It is also to be observed, that Southampton has for several years past been a principal station for stage-boats running to the Isle of Wight, to France, and the Channel Isles; and that, from its position and the facilities which it affords for the embarkation of passengers, it must, upon the completion of the Railway, become one of the principal ports of the kingdom. As a proof of the increasing importance of Southampton as a Port, Steam Navigation Companies have been recently formed to run to the Western Channel Ports, and to the Southern parts of the Continent of Europe.

After this exposition of the effects to be calculated from the completion of a communication by railway between the north and south of England, unavoidably leading to the intersection of the entire line from Edinburgh to Southampton, by lines of railway from all parts of the country, east and west, and consequently the concentration of a large proportion of the traffic of the country upon the North and South Junction Railway, it cannot be necessary to present any statement of figures to show that the returns must be highly remunerative to capital.

It is at present proposed, that the northern terminus or termini of this line shall be selected with reference to the points of junction of the Birmingham and Derby Railway, and the Midland Counties Railway, or of one of them, with the London and Birmingham Railway; and that the line shall proceed thence in a southerly direction, approaching in its course, as nearly as possible, Leamington, Warwick, Banbury, Oxford, Abingdon, and Newbury, to the London and Southampton Railway at or near Basingstoke; thus connecting the country through which the line between the northern and midland counties and the English Channel.

The length of the line will be about ninety miles; and, as soon as the surveys can be completed, further particulars will be stated.

The capital required will be from one million and a half to two millions, dependent on the surveys; to be raised in shares of one hundred pounds each, on which a deposit of three pounds per share is to be paid.

Applications for Shares to be made (post paid) to Messrs. Few, Hamilton, and Few, Covent Garden, in the form annexed.

March 24th, 1856.

TO THE PROVISIONAL COMMITTEE OF THE NORTH AND SOUTH JUNCTION RAILWAY.

Gentlemen,—I request to become a subscriber for — shares in this undertaking, and agree to take such shares as shall be allotted to me, and to pay the deposits thereon, in conformity with the prospectus dated 24th March, 1856, and to execute the Parliamentary contract and Subscribers' agreement as and when I shall receive notice so to do.

I am, gentlemen, &c.

(The Christian and surname, with date and address, to be signed by the applicant.)

LONDON, SALISBURY, EXETER, PLYMOUTH, AND FALMOUTH RAILWAY COMPANY.

Capital £2,500,000, in shares of £25 each. Deposit £1 per share.

PROVISIONAL COMMITTEE OF MANAGEMENT.

John Allen, Esq.
Col. William Bailey.
William Cash, Esq.
A. I. H. Gurney, Esq.
George Hogarth, Esq.
Charles Hood, Esq.
Edward Hughes, Esq.
Thomas Philipps, Esq.
George Money, Esq.
W. Norman, Esq.
Robert Page, Esq.
William Pinney, Esq., M.P.

With liberty to add to their number.

ENGINEER—George Landmann, Esq.
SUPERINTENDENT—John Herapath, Esq.
SURVEYOR—Mr. Charles Dean, Esq.

Applications for shares in the capital stock of the Company are received by Messrs. Spooner, Attwoods, and Co., and Messrs. Bouvier, Norman, and Murdoch, Bankers, London; by Messrs. Birkett and Son, Cloak-lane, Cheshire; and by Messrs. George Stephen, 20, Basinghall-street, the Solicitors of the Company; by Messrs. Palmer and Gillan, 44, Parliament-street, and by Sir Robert Sydney, 11, Pall-mall; Westminister, Parliamentary Agents to the Company, and at the temporary offices of the Company, 12, Pancras-lane, Cheshire; London; by Messrs. Spooner and Co., Bankers, Exeter; W. H. Furlong, Esq., Solicitor, Exeter; H. B. Furlong, Esq., the Secretary to the Exeter Committee, at the office of the Company, 1, Castle-street, Exeter; Messrs. Brodie and Co., Bankers; by the Wills and Dorset Banking Company; by William Housman, Esq., Solicitor, the Close, and by John Peniston, Esq., the Close, Salisbury; William Stone, Esq., Bradford; Thomas Herbert Griffith, Esq., Warrminster; by Messrs. Brodie, King, and Co., Shaftesbury; and by the respective branches of the Wills and Dorset Banking Company at Blandford, Dorchester, Warrminster, Poole, Wimborne, Frome, Bradford, Chippenham, and Devizes; by the Devon and Cornwall Banking Company, and by the respective branches of that establishment at Ashburton, Bodmin, Dartmouth, Devonport, Kingsbridge, Liskeard, Newton Abbot, St. Austell, and Totness; by Messrs. Williams and Co., the Miners' Bank, by Messrs. Tweddle, Williams, and Co., Bankers; by Messrs. Major, Turner, and Co., and by Henry Barrow, Esq., Truro; by Messrs. G. Atkinson and Townly, Share-brokers, Liverpool; Mr. David Holt, Share-broker, Manchester; by Messrs. Bidlake, Share-brokers, Leeds; by Mr. John Field, Share-broker, Sheffield; by Mr. J. S. Pidgeon, Share-broker, 3, Duke-street, Reading; by Mr. Christopher Roberts, Share-broker, Birmingham; by Mr. James Thomas, Alton Chambers, Bristol; by Mr. H. N. Payne, Share-broker, Wolverhampton; by John Gibbard, Esq., Solicitor, Devonport; by Messrs. Garney and Lethbridge Oswald, Solicitors, Llanecannon; and by William Bird, Esq., Solicitor, Okehampton.

The promoters of, and the Provisional Committee of Management for, this undertaking, have obtained from publishing the measure, or seeking the public approbation and support of the lines of Railway proposed to be constructed, until the result of a survey, and an examination of the several routes intended to be taken, had been brought under consideration, and had undergone the investigation which can alone secure public support and the sanction of the Legislature.

12, Pancras-lane, Cheshire, London.

LONDON AND BIRMINGHAM CANAL.
CAPITAL—THREE MILLIONS.
In Shares of £100 each—Deposit £2.

PROVISIONAL COMMITTEE.
CHAIRMAN—Francis Downing, Esq.

Badger, Thomas, Esq., Dudley.
Barker, John, Esq., Wolverhampton.
Brayley, Richard, Esq., Thorton.
Bridges, Edward, Esq., Wednesbury.
Cottrell, Thomas, Esq., Birmingham.
Chance, Robert Lucas, Esq., Smethwick.
Chance, William, Esq., Birmingham.
Chase, Edward, Esq., Dudley.
Foster, James, Esq., Stourbridge.
Finch, Francis, Esq., Great Barr.
Gresley, Richard, Esq., Meriden.
Grove, Joseph, Esq., London.
Griffith, John, Esq., Ayrton.
Hawkes, Thomas, Esq., M.P., Himley.
Haines, Richard, Esq., West Bromwich.
Hunt, Thomas Yate, Esq., Brades.
Moullet, John Lewis, Esq., Birmingham.
Mason, James, Esq., Birmingham.
Molloy, C. Henry, Esq., Dudley.
Robins, William, Esq., Stourbridge.
Ryland, Samuel, Esq., Warwick.
Richards, Theophilus, Esq., Birmingham.
Round, John, Esq., Sedgley.
Scott, Robert, Esq., Stourbridge.
Sparrow, W. H., Esq., Wolverhampton.
Scholfield, J., Esq., M.P., Birmingham.
Smith, Richard, Esq., London.
Webb, John, Esq., Burton-upon-Trent.
Williams, Walter, Esq., Handsworth.
Williams, Philip, Esq., Tipton.

With power to add to their number.

SOLICITORS—Messrs. Ingleby and Wragge, Birmingham; Messrs. Baxendale, Tatham, Upton, and Johnson, 7, Great Winchester-street, London; Messrs. Wilson, Bell, and Steward, 35, Lincoln's Inn-fields, London.

ENGINEERS—James Walker, Esq., F.R.S.L. and E., London.
John Thomas, Esq., London.
SCRUTINY—Mr. Dugdale Houghton, Birmingham.

BANKERS—Messrs. Taylors and Lloyds, Birmingham; Birmingham Banking Company; Messrs. Dixon, Dalton, and Co., Dudley; Messrs. Mollet and Son, Birmingham; Messrs. Hankey and Co., 7, Fenchurch-street, London; Messrs. Vere, Sapie, Banbury, Muspratt, and Co., 77, Lombard-street, London.

CONDITIONS.

1. The Act of Parliament will provide that no person shall be responsible beyond the amount of his shares.

2. Deposit of £2 per share to be paid, and no further call will be made till the Act be obtained.

3. The Deposit shall be available to the necessary expenses of the undertaking.

4. Interest at the rate of 34 per cent. will be allowed on the calls, until the completion of the Canal.

5. Calls will be made after the Act is obtained, by Quarterly payments of £6 5s. per share.

PROSPECTUS.

Of a Line of Navigation from Birmingham to London, commencing at the Stratford-on-Avon Canal in Warwickshire, and ending at the Regent's Canal, London; to be called THE LONDON AND BIRMINGHAM CANAL NAVIGATION. The great and leading objects of the proposed undertaking are—

First.—To effect the cheapest and most direct practicable line of water communication between London and Birmingham, and the great mining districts of Staffordshire, Worcestershire, and Shropshire.

Second.—To obtain, by the communication it will open with the Regent, Stratford, Worcester, Birmingham, Birmingham and Liverpool, Epsom and Chester, Trent and Mersey, and Bridgewater Canals, the quickest, cheapest, and most convenient line of canal conveyance, between London, Birmingham, Liverpool, and Manchester; also by a junction with the Oxford Canal at Banbury, an improved communication to the city of Oxford.

Third.—To give the facilities and advantages of water conveyance in the valuable and extensive districts through which the proposed line of Navigation is intended to be taken, districts capable of great and rapid improvement, and to which nothing can so materially contribute as a cheap and direct communication with the Metropolis, and the great manufacturing towns of Warwickshire and Staffordshire.

It must be evident that the proposed undertaking embraces objects of the highest national importance, and cannot fail to produce great and almost incalculable advantages to the Agricultural, Commercial, and Manufacturing interests of the kingdom.

The extraordinary facility that this line would give to London and Liverpool, to the manufacturers of Manchester, Birmingham, Wolverhampton, Dudley, Stourbridge, and Walsall, and to the Proprietors of Mines and Works in the counties of Stafford, Worcester, and Salop, must be obvious to the most superficial observer. Birmingham and Wolverhampton, and the contiguous mineral districts, would then be situated about midway, on the great thoroughfare water communication between London and Liverpool, and London and Manchester, and as vessels would be moving incessantly in each direction, the increased facility and dispatch could not but be productive of the highest advantages.

One great feature of the proposed undertaking, is the opening of a cheap communication between the Metropolis and the great coal-fields of Staffordshire and Worcestershire. In the attainment of this object, every inhabitant of London ought to feel himself interested; experience every day furnishing additional proofs, that nothing but effective competition from the interior of the kingdom can insure to the householders of London a regular and steady supply of coal at moderate prices. Perhaps it is scarcely possible for the most sanguine mind to form an adequate conception of the benefits that would result from enabling the midland coal proprietor to compete with the northern proprietor, in supplying London with coal—monopoly would be rendered impossible, combination frustrated, and free and active competition completely secured. By the proposed route, Staffordshire coal can be delivered in the City Basin at prices varying with quality, from 15s. to 20s. per ton.

With a view to render this concern as extensively useful as possible, the rates of tonnage will be low, and thus command that great mass of business which invariably follows moderate charges.

Manure and road materials will be permitted to pass at low rates. Wharfs will be provided where the canal will intersect main thoroughfares, and every encouragement be afforded to the free development of the energies of the districts through which the canal will pass.

The proposed navigation will possess all the improvements of the best modern canals. Where tunnelling is necessary, two tunnels, with a towing path under each, will be made; the sides of the canal will be walled; and the greatest of all modern improvements, the double towing path, will be carried throughout the entire line.

Conceding in the superior cheapness and convenience of water conveyance (particularly as regards raw materials and heavy commodities), the promoters of this undertaking have no hesitation in submitting their plan to the public, in the face of the numerous railways now in course of formation; every day, in their judgment, furnishing further and satisfactory proof, that, though railway conveyance may be preferred for passengers and light goods, that require dispatch, and will bear high rates of transit, the great bulk of the trade of the country will still be carried on through the medium of cheap navigable communications.

The clear and honest manner in which the promoters of the proposed line, in the highest degree encouraging; and that, if due consideration be given to the merits of the proposed line, to the great extent and simplicity of its levels, to the superiority it will possess in respect to distance and lockage, to the well-ascertained fact that a full supply of water can be provided, the conclusion will be fully warranted, that in a short time after its completion, this really grand internal communication will yield such a return, as will entitle it to be classed amongst the most productive and successful undertakings of the kind in the kingdom. According to a moderate estimate, full ten per cent. will be realised. By the proposed route, goods will be delivered in London in thirty-two hours, instead of seventy, by the existing route. The saving in freight 20s. per ton.

Applications for Shares to be made to the Solicitors, and to Mr. GEORGE PALMER, 2, North Piazza, Royal Exchange; and no Shares will be secured until the deposit is paid.

GEOLOGICAL AND SURFACE MAP OF THE PRINCIPAL MINING DISTRICT OF CORNWALL. showing the nature of the ground, with the lodes and courses, elevations of hills, and of the ground throughout, depths of mines, adits, and other interesting information, together with Geological Views on paper, in a separate form, by RICHARD TIGMANS, Civil Engineer. The whole was published at 17, 11s. 6d., by Messrs. CART, St. James's-street, and may be had of the Booksellers in Cornwall.

And, by the same Author,
THE MINERS' ASSISTANT;

Containing Instructions for Surveying Mines and Works connected with them, with useful Tables for facilitating the various operations; published by Mr. TRATMAN, Falmouth, price 5s. 6d.

CHART OF THE SEVERN.
From below King's Road to above Gloucester, including the River Wye to Chertsey, with sections relative to the tides, rocks, and shoals of those rivers; accompanied with directions to navigators; size, 6 feet by 2; scale, 2 inches per mile; price 21s. 2s.

HINTS FOR THE IMPROVEMENT OF THE NAVIGATION OF THE SEVERN, which may be applicable also to other navigations, price 1s.

THE DOCTRINE OF ESTATES AND ANNUITIES. Held for lives or terms of years, and Assurances on Lives, explained on plain arithmetical principles, with extensive Tables of their Values, &c. The work contains methods (never before published) of finding the values of Life Annuities and Assurances, who has a thorough knowledge and experience of the purpose, by which those calculations may be performed by very simple operations. price 7s.

HISTORY OF FALMOUTH. Price 5s.

Any of these Works may be had of Mr. TRATMAN, Falmouth, and of other Booksellers.

THE METROPOLITAN NEWSPAPER COMPANY, for the publication of a LIBERAL DAILY MORNING PAPER, to be called THE CONSTITUTIONAL CHARTER.

Capital £50,000, in 5,000 shares of £10 each. Deposit £1 per share.

Since the prospectus, dated March 3, was issued, a Board of Trustees and Directors has been formed, consisting of the following gentlemen:—

D. Urwin, M.D.
Major R. Anstruther
Capt. John Macarthur Low, R.N.
J. P. Litchfield, M.D.
Major Carmichael Smyth
Captain R. Spratt

In whose names the property of the Company will be vested in trust, for the shareholders, and who will not be held responsible for the literary management of the Paper. They have appointed as managing director, a gentleman of recognised literary ability, who has a thorough knowledge and experience of Newspaper business. The following Board of Auditors has also been formed:—

James Lowe, Esq.
Sheridan Knowles, Esq.
The Directors of the London and Westminster Bank (Bloomsbury branch) have been appointed bankers to the Company.

In order to diffuse the interest of the Company more extensively, and to meet as far as possible the applications for shares, the Board of Trustees have determined to limit to fifty the number of shares to be held by any individual shareholder.

The Trustees have adopted for the Company the title of THE METROPOLITAN NEWSPAPER COMPANY.

Applications for shares will be received at the offices of Mr. J. Nokes, 14, Charterhouse-street, Bloomsbury, solicitors to the Company, where copies of the Rules and Regulations may be obtained until the 8th of April next, immediately after which the allotment of shares will be made.

J. E. PUDDICK, Secretary.

March 26.

WEST-INDY AGRICULTURAL COMPANY.
Capital, £500,000, in 10,000 shares of £50 each. Deposit £2 per share.

Trustees (with power to add to their number),
The Right Hon. the Earl of Mountnorris, William Alexander Mackinnon, Esq., M.P., William Archibald Campbell, Esq.

BANKERS—Messrs. Glyn, Harfax, Mills and Co., 67, Lombard-street.
SOLICITORS—B. Lumley, Esq., 6, Quality-court, Chancery-lane.

Detailed estimates and prospectuses have been prepared for the information of the public, and may be obtained from the Solicitor, and at the Office of the Company, 17, Ironmonger-lane, Cheshire.

Applications for Shares may be addressed to the Solicitor, B. Lumley, Esq., or to the Secretary, at the Office of the Company, where further information may be obtained daily, from eleven to four o'clock.

WHEAL WEST HOE LEAD AND SILVER MINES.
In the parish of Quithlock, near Callington, Cornwall. A Company is formed to work these valuable Mines, with a Capital of £17,500, in 3,500 shares of £5 each; deposit £1 per share.

1,500 shares are engaged by parties resident in the neighbourhood of the Mines, and other friends to the undertaking; the remaining 2,000 will be appropriated as early as possible after the 31st of March. Until which day applications may be addressed to Charles Topley, Esq., Managing Director, Office for British and Foreign Patents, 27, Poultry; or to J. E. Blewett, Esq., Partner to the Mines, Exchange, Plymouth; from either of whom prospectuses may be obtained. Letters to be post paid.

PARLIAMENTARY SUMMARY.

HOUSE OF LORDS.

MONDAY.—The Macleod Small Debts Bill was read a second time.—Several petitions were presented against the Ecclesiastical Courts Consolidation Bill.

TUESDAY.—The Municipal Reform (Ireland) Bill was read a first time.—The Municipal Reform Acts Amendment Bill was read a second time, and ordered to be committed.

WEDNESDAY.—The Royal assent was given to the Annual Indemnity Bill, the Spanish Slave Trade Abolition Bill, the Reading Gas Bill, and the Middlesex Hospital Incorporation Bill.—The Arbroath and Forfar Railway Bill, and the Birmingham and Gloucester Railway Bill were read a first time.—The House adjourned until Tuesday, the 12th of April.

HOUSE OF COMMONS.

MONDAY.—The Newry Canal Bill was read a second time.—The second reading of the Ulster Canal Bill was postponed till the 12th of April.—The Dublin Drogheda Railway Bill was read a second time, and ordered to be committed.—The Glasgow Water Works Bill, and Dundee Water Works Bill, were read a first time.—Petitions were presented against the Greenwich Pier Bill, and the Grand Junction Railway Bill, and also against the London and Brighton Railway Bill (Stephenson's line).—The Dundee Harbour Bill, and the Glasgow and Ayr Railway Bill, were read a first time.—The third reading of the Irish Corporation Reform Bill was, after a long discussion and powerful opposition, read a third time and passed; for the third reading 260, against it 199; majority 61.

TUESDAY.—The Thames Junction Railway Bill was read a second time.—Petitions were presented in favour of the Eastern Counties Railway Bill, the North of England Railway Bill, and the Midland Counties Railway Bill, and against certain clauses in the Durham Railway Bill, against Stephenson's Line of Railway Bill (Brighton), and also against the South Eastern Railway Bill.—Colonel SIBTHORP gave notice, that he would take the sense of the House on the third reading of the Hull and Selby Railway Bill, on which occasion he would move that it be read that day six months.—The Birmingham and Derby Junction Railway Bill was reported, with amendments.

WEDNESDAY.—The Birmingham and Gloucester Railway Bill, and the Birmingham and Derby Railway Bill, were read a third time and passed.—Colonel SIBTHORP opposed the third reading of the Hull and Selby Railway Bill, when, after some discussion, a division took place, and there appeared, for the third reading 128, against it 9; majority 119.—Mr. LAWSON, that a clause be inserted in the Bill to prevent travelling on the Hull and Selby Railway on Sundays, on a division there appeared for the clause 14, against it 101; majority 57. The House adjourned to the 11th April.

ORIGINAL CORRESPONDENCE.

DUCHY OF CORNWALL.

AUDITOR'S REPORT.

LETTER IV.

TO MINERS.—GENTLEMEN.—On reading over my letter, No. 3, I think that I ought not, in justice to you and to the subject, to dismiss the worthy knight's proposition, that "the existing system of Stannary jurisdiction is sanctioned by custom, and by the Legislature," without giving you some further evidence in support of my statement of the customary and legal character of the Stannary courts, as distinguished from the illegal existing system.

The Knight de la Mancha started with a determination to meet with adventure,—and turning, in his feverish brain, into castles, and slits into heroines, he courted and received the most, and well-deserved drubbings. Why should knights of the Duchy, who start on similar excursions, flatter themselves that they can escape a kindred chastisement? Surely a knight who fancies an iron castle, stands much upon a par with a knight who would persuade the public that corruption is purity.

Let us turn to documents, to prove that the four stewards' courts, and the Court of Appeal are the only customary courts in the Stannaries, and which will explain the true and simple nature of those courts. At present I do not mean to refer to the Stannary roll of 26 Geo. II. because I have first to try, whether that be an authentic document or not. Sir George is very valiant upon that record (as he calls it), from the circumstance of its having passed muster in the renowned trial of Rowe v. Brenton. I must remind him that upon that occasion it was smuggled upon the court, without argument as to authenticity!—and if my Lord Brougham had known as much of that record as I have ascertained in the county, and also of the assessor's rolls, I am of opinion that neither one nor the other would have been admitted in evidence. I have a tale to tell thereupon, which if the judges had been told on that occasion, might probably have turned this favourite piece of parchment into an useful and honourable employ—ladies' thread-papers. As my engagements compel me to write as I run, I must be forgiven if I do not quite preserve chronological order.

Queen Elizabeth, in the 31st year of her reign, wrote as follows to her "Justices of Assize:—"

TO OUR TRUSTEE AND WELLBELOVED THE JUSTICES OF ASSIZE OF OUR COUNTIES OF DEVON AND CORNWALL.

ELIZABETH—BY YOUR QUEEN.

Trusty and welbe loved, we greet you well. Whereas amongst other royalties and jurisdictions granted heretofore by our noble progenitors to the Prince of Wales and Duke of Cornwall and Devon, were committed to his government, and because the success of their labors in seeking for tyne was very uncertain, divers privileges, liberties, and ymnities for their (the tinners) better encouragement were granted unto them, amongst which the chiefest was, that they should not be mustered, taxed, charged or rated with any imposition, charge, or service, but only by their warden or chiefe steward of the Duchy for the tyne being, or by his authority, by the direction of us or our privy counsel, neither consented, sued, or compelled to answer for any cause (pleas of land, life, or maihem only excepted) before any other judge, officer, or magistrate, save only their said warden and chiefe steward of the Duchy of Cornwall, or his officers, and for want of justice to be done by the said officers, by way of appeal to their warden and chiefe steward, and from hym, if they had wronged, to our privy counsel, and from them to our royal person, as by their charter att large doth appere, which course hath been inviolably held ever amongst them till now of late. Some (as we are credibly informed) have intermeddled with the government of the tyanners, and by foreine authority have charged and rated them for divers payments, without consent of their warden, and have taken upon them the correction of abuses which they supposed have been committed by the tyanners and officers of the Stannaries, and have bound some bayliffs and other officers of the said Stannaries unto their good behaviours, and compelled them to appeare and answer in their quarter sessions for executing of Stannary process, before any complaint made either to their warden, or counsel, or us, contrary to the liberties and privileges granted unto them, and to the manifest derogation of the authority granted and reserved to the said warden or counsel and our selfe. For reformation whereof, our will and pleasure is, that the tyanners and Duchie tenants of Cornwall and Devon shall hereafter be governed by their warden and his officers, according to their charter and the auncient lawes, customes, and privileges of the Stannaries, as heretofore have been used and accustomed. And, therefore, we will and commaunde that no sheriff, commissioner, or other officer whatsoever, do henceforth muster, rate, or charge any of our said tyanners or Duchy tenants, or otherwise offer any grieffe, molestacion, or disturbance unto the jurisdiction of the said Duchie or Stannaries; neither do consent, expect, or compel any bayliff or officer of the Stannaries, or any of our tyanners or Duchy tenants, to answer for any cause or abuse arising or growing within the said Stannaries, and determinable there. But that the government, examination, judgment, and correction of all and singler such causes and matters, be permitted and suffered to have their passage before the officers of the Stannaries and Duchie, and for default of justice att their hands, by appeal to the warden, and from him to our privy counsel, and from them to our royal person, as heretofore

PANY.—
per share.
on, Esq. M.P.,
street.
ne.
information
Office of the
y, Esq., or
ation may be

MINES.
Company is
00 shares of
the Mines,
associated na-
one may be
and Foreign
Exchange,
a table post

nd time.—
Consoli-

st time.—
and

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

nd time.—
Consoli-

hath been used; which our pleasure and express commandment we will and require you to signify to all officers, ministers, and loving subjects in Devon and Cornwall at the next general assizes to be held in these counties, requiring them effectually to observe and fulfill the same accordingly, as they tender our pleasure, and will answer the contrary at their peril; and yet, nevertheless, our meaning is not but that during the time their shall be any lieutenant-general of the said counties, or of either of them, the authority of the said lieutenants shall be of force and continuance, for the mustering or levying of any forces to withstand any invasion or rebellion, so as the said lieutenants joyne with our warden of the said Stannary in the execution of such needful services; to which purpose we do will and command them both to joyne and agree together to the furtherance of our said service.

Given under our signet at— the 28th of June, in the 31st year of our reign.

This document shows the private and peculiar nature of the jurisdiction of the Stannaries, and the class of persons to which it applied in that day. Let me ask Sir George Harrison, whether the merchants of London, and other persons of responsibility, who now work mines in Cornwall, but who never even visited that county, are "tinner" within the meaning of this mandate? Do the words "because the success of their labours in seeking for tyne was very uncertain, divers privileges, liberties, and immunities, for their better encouragement," &c., apply to these London merchants? Has "the warden or chief steward" power over them—the merchants of London? Did the directions to the justices of assize affect a London merchant who had a share in a tin mine? and if not (these merchants having large interests in tin mines), what becomes of Sir George's assertion, that the Stannary jurisdiction is "competent to embrace every interest?" &c. Again, is it not obvious from this record, which bears date upwards of two centuries prior to the present time, when the nature of the Stannaries were better understood than they are now, that it refers to the Stannary jurisdiction as *private and peculiar*, applicable to the labouring tinner only,—the *Prince's tinner*, who worked for the benefit of his farm—the Stannary farm? Passing from the reign of Queen Elizabeth to the 16 Charles I., let us inquire to what extent the Legislature recognised the jurisdiction of the Stannaries, and we shall find the character it derives from Queen Elizabeth's mandate confirmed by the British Parliament. By this statute (16 Charles I.) it is expressly declared as the law of England, that if any person or persons that shall be sued in the said Stannaries, shall swear, or tender his or their oath in the said court, where he or they shall be sued, that he or they are not, nor is, nor at the time the suit commenced was not, nor were a tinner or tinner, then such defendant or defendants shall be forthwith discharged of such suit, unless the plaintiff or plaintiffs do forthwith make oath that the said plaintiff or plaintiffs is or are true and working tinner, without fraud or deceit, and that the cause of his or their suit arose within the said Stannaries, or concerneth tin or tin-work; and if any person be not reverend and without fraud, working and labouring tinner, in or about some tin-work, set on work within one half-year next, before his suit, shall sue, prosecute, or plead in any the said courts, or before the warden, vice-warden, or steward of the said Stannary, any person or persons that is or are not a tinner or tinner at the time of such suit commenced, then the defendant and defendants in every such case shall have his or their action at the common law, against such person suing or prosecuting, wherein he shall recover ten pounds, and his damages and costs of suit, provided that such action be brought within two years next after the action or suit brought in the said Stannary courts, or before the said warden, vice-warden, or steward.

Sir George Harrison is not very fond of this statute, because it restricts the jurisdiction of the Stannaries to cases in which one party, at the least, plaintiff or defendant, shall be a labouring tinner. This act knocks down, as useless lumber, all the auditor's inquiry and research, to show that at one time the jurisdiction extended to all persons connected with tin-mines; because, no matter what was the state of the jurisdiction prior to 16 Charles I., the act then passed settled the question. Feeling this to be the case, and desiring to make out that the Stannary judges could drag any gentleman from London or elsewhere before them, the auditor tries by his book to make it appear, that the *prescriptive* jurisdiction of the Stannaries is one kind of power, viz. large enough to reach all men who invest capital in, or meddle with mining, and that the jurisdiction recognised by charters and the statutes of the realm is another kind of power; and with this view he ventures to say, that the statute left the Stannary jurisdiction as it was before the passing of the act, i.e. (as he would have it) comprehensive enough to reach to London and elsewhere. This absurd position I assert to be the one taken by Sir George: that it is absurd is manifest upon the face of it; but I shall not leave the proposition with this assertion, I proceed to prove it fully.

Acts of Parliament are sometimes ambiguous, but there is no ambiguity here (15 Chas.); it is plain and intelligible. I am not aware that this act can be argued away by the ingenuity of any one. It is too clear to be misinterpreted; but yet the auditor, determining to write up to his own views, thus treats it in page 66 of the Substance. It will appear that he finds the act strike at the root of the argument, and therefore he tries to set up "lex non scripta" against it, but he fails. He says, speaking of this act, "Its operation is therefore manifestly confined to the case of the labouring tinner, and leaves the *prescriptive* jurisdiction as it was before the passing of the act," &c.

I have read this passage frequently; and then I have turned to the act of Parliament, and back again. I have gone to page 66, because regarding Sir George (as I do) as a gentleman legally educated, as a man of unquestionable talent, rapid perception, and many other desirable qualifications, tending to the right use of reason, I really, when I read his commentary on the act, doubted my own capacity to comprehend the matter. However, I must venture at length to declare, that my conclusion is quite at variance with his; and as I do so publicly, I pray that, if Sir George be right, sentence of stupidity, or wilful misrepresentation, may be passed upon me; but if my construction of the act 16 Charles I., in direct opposition as it is to that of the auditor, be accurate, he must, in fairness, receive the sentence, to my exoneration.

Between the period of the 33 Edward I., when the privileges of the tinner were confirmed by charter, and the reign of Charles I., doubts and disputes frequently arose upon the jurisdiction of the Stannaries, not only in regard to the class of persons who might be subject thereto, but also to the places to which the same extended. After the Charter of Exposition, 50 Edward III., there came references to the Judges, then appeals to the Duchy, and subsequently to his Majesty in council. Still, however, the doubts existed; and then came the act of the Legislature, (16 Charles I.) which settled the question of jurisdiction, so far as it related to the persons who might be parties to a suit in the Stannary courts. As to the places which were within the jurisdiction, it confirmed the 50 Edward III., and declared the words "in locis ubi operantur," should be taken to mean the village, &c., where the tin-work in work is situate, and not elsewhere, and no longer than the work should continue. We have seen from the extracts before made from this act, that it restricts the privileges of the Stannaries, in regard to the suitors of the courts, to parties, one of whom must be a labouring tinner. This is in accordance with the spirit of the act, which recites that the charters were granted for the ease and advantage of tinner; and, therefore, the act declares in effect, that if the tinner be plaintiff, he may sue a stranger in the Stannaries, or if he be defendant, the stranger must sue him in the Stannaries; and at the same time the act expressly enacts that the tinner may sue foreigners at the common law; so that the courts were the labouring tinner's privilege. But Sir George says, the act is confined to the case of the labouring tinner, and that it leaves "the *prescriptive* Stannary jurisdiction as it was before the passing of the act," or, in other words he would say, the statute is a nullity; that is the result of his argument. Let us try it. I shall assume for this purpose, that the *prescriptive* jurisdiction of the Stannaries extended to all persons and all places in England (I hope Sir George will revel in the idea for the moment), and that in this state of things the statute of 16 Charles I. was passed. What does it enact? Why it enacts, that if "any person" be sued in the Stannaries, who shall swear he is not a tinner, he shall be discharged, unless the plaintiff be "a true and working tinner."

Here the statute clearly excludes all persons from the jurisdiction, if one party, plaintiff or defendant, be not a tinner. Its operation is not, as Sir George would have it, "confined to the case of the labouring tinner;" on the contrary, it excludes all suits against any person, not a tinner, unless the plaintiff be a tinner; no matter what the extent of the jurisdiction might have been prior to the passing of this act; for after it was passed it was not "confined to tinner;" but was applicable to all England, so far as it clearly said, no man shall have the privilege of the Stannaries but a tinner; and he is so privileged, that he shall not be sued elsewhere, if he please to insist on his privilege; and, on the other hand, the tinner shall

be at liberty to try his case with a foreigner in the Stannary court; provided however that the matter be within the jurisdiction as to place. No matter what the *prescriptive* right was theretofore, the jurisdiction was now limited to the meaning of the act. Did the act declare that it confined its law to labouring tinner? does it not, on the contrary, prohibit all suits against "any person or persons," unless the plaintiff should be a tinner within the meaning of the act?

In the next place, the tinner plaintiff must, according to this act, be "revers and without fraud a working and labouring tinner;" and here again, "any person" not being a working tinner, who should venture to become a plaintiff in the Stannaries against any person who was not a tinner when the suit commenced, would be subject to damages for taking proceedings in the court: so that it is obvious, that whatever the *prescriptive* jurisdiction might have been, this statute of Charles I. restricted that jurisdiction to suits in which one party or the other was a working tinner. What then does Sir George mean by saying that the act "leaves the *prescriptive* jurisdiction as it was before the passing of the act?" Why he means to say that, notwithstanding this act, suits may be entertained in the Stannaries between merchants in London and elsewhere, about mines in the Stannaries. I say, no such thing. The act brings the jurisdiction to its customary power; it secures the privilege of the court to the working tinner. If the *prescriptive* right extended to all men dealing with tin, of what necessity was there for the act to secure it to the tinner by this legislative interference? In that case no such necessity could have existed. The act shows by its recitals, that it intended to restore the tinner to the liberties they had a right to under their charters; and then, after shewing by its language that abuses had crept in, and that the jurisdiction had been extended, the necessity of the act is obvious to restore the jurisdiction to its *prescriptive* and chartered rights, and to limit it to its *prescriptive* and chartered powers. It granted no new boon;—it excluded all the world from the privileges of the tinner. It deals with the whole subject; it confirms a former charter; and then goes on in clear terms to show who, and who alone, to the exclusion of all others, shall be parties to a suit in the Stannary court. I say I have proved that Sir George is wrong in his construction of the act; and that however comprehensive the jurisdiction might have been in regard to persons prior to the act, I clearly show that the act of Charles operated to exclude all suits by any person from the Stannary courts, in which one party was not a tinner, within the meaning of the act; and that so far from the act being merely applicable "to the case of the labouring tinner," it limits the courts of Stannary as places of privileges for labouring tinner, and excludes (I should say protects) every person from a suit in the Stannary courts, unless he shall be prosecuted in those courts by a "working" and "labouring tinner;" or unless a man having to prosecute a suit against a tinner be compelled, on the privilege of that tinner, to take him into the Stannary court. This being so, how came Sir George to issue a book, subscribed by him as the authorised officer of our gracious King, the auditor of his Majesty's high Duchy of Cornwall, telling the public that "the existing system of Stannary jurisdiction is sanctioned by custom and the Legislature;"—the fact being, as I have shown in the course of my letters, that the Stannary authorities disregard the customs; and with no greater respect for the act of Charles—the law of the land—than they have for the local customs, deal with suits in their courts between persons expressly excluded from those courts by the 16 Charles I., and in direct abuse of that act?

I am not seated at my table in the midst of authorities, and surrounded by record searchers and expounders, as Sir George is: I have no such felicity. I snatch an hour at midnight, after the toils of the day are over, to unmask his report; and therefore I must be forgiven if I fail to bring down the host of evidence which might be adduced in exposition of that mistaken document—that aerial "substance." But, I trust, I bring sufficient authority to establish my assertions; and to show that the propositions which I combat are not tenable. But one word more, Sir George, in page 66, goes on to observe, that his construction of the 16 Charles I., "has evidently been adopted in the two succeeding Stannary laws of 2 James II., and 26 George II.; and the usage has been conformably thereto." Piteous remark! unqualified is the evidence it presents of the auditor's own opinion of the construction he has given of the statutes in question!!

I enter not at present into the question of the legality of the fraudulent codes Sir George here alludes to; but I ask him whether he is not aware that the unauthorised makers of those laws (unauthorised except so far as they declare customs in accordance with law) have not added a saving clause at the end of each code, saying, that their codes shall be law in the Stannaries, "so far as they be not repugnant to the statutes of the realm." The auditor knows that the Stannaries, doubtful of what they were doing, appended this absurd clause to their codes.—I may say ignorant clause; for they could not make laws repugnant to the law of the land; and their code therefore wanted not this superfluous appendage. However, the words bear upon the argument of Sir George, because he refers to those codes as having adopted his construction of the statute. Now, as I have shown that his construction is not the correct one, it follows that the Stannary codes relied on by him are repugnant to the statutes of Charles in this respect; and therefore, on their own showing, it then becomes obvious that they drop from under Sir George, and are no authority to rest upon in this respect, because they are "repugnant to the statutes of the realm." As to usage, Sir George is a lawyer, and must not talk of a usage beginning in the times of James II. or George II.

I am sorry to trouble you with so long a letter; you will pardon it, because at a moment when the value of Cornwall is developing itself, and attracting the attention of our large and monied cities and towns, at a distance from your mines, it is the duty of every man who is interested in your county to expose the fallacy of an attempt to write up an old and incompetent jurisdiction,—the effect of which would be to deter persons who do not reside near you from embarking in your valuable mines. Need I point out, that such a result would paralyse your laudable exertions; and that those resources, which can be alone rendered available by means of capital and science, would remain comparatively unexplored and useless, should Sir George succeed in his attempt.

I am, gentlemen, your obedient servant,

GEORGE CONCANEN.

ON THE VENTILATION OF MINES.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—The art of ventilating mines consists in establishing a current of atmospheric air through the various workings, so that by mingling it with the noxious gases, their deleterious effects may be destroyed, and by producing a continuous current they may be removed as they arise.

There are in general practice two modes of effecting the desired object; one dependant on the different specific gravities of gases and of air at different temperatures, which may be either natural or artificial; and another the result of mechanical contrivances, which is essentially artificial.

The first means is the most common. On that principle the noxious gases are drawn from the workings in the mine by one shaft, the external air rushing in to supply their place by another. If this principle can be brought into action naturally, that is by the skillful conducting of the drifts and levels—avoiding unnecessary turns—it is infinitely to be preferred to all other means; for its action will be constant, and not a mere palliative of the evil, as is the case with machines of which the good effects cease with the action of the power.

Miners are aware of the means adopted for taking full advantage of such circulation. When not natural, it is induced by furnaces of different kinds, one being placed at the head of a shaft not in use, and so constructed, that the whole supply of air for combustion must be drawn from the mine. This method is often very expensive, and in the case of inflammable gases being largely supplied it is dangerous.

Of the generally known mechanical means, all of which are extremely rude, and have been in use out of memory, we shall say nothing, save that their action having been in every case confined to forcing an excess of air into the mine, and therefore requiring powerful mechanical agents to supply it in any quantity, at any considerable depth; and even when supplied, it does not affect the heavier gases, which continue to accumulate, and ultimately produce the most baneful effects.

We are not aware of any machine having been applied to drawing air from mines, till lately the idea was communicated with the accompanying design of the pump, from Verviers, in Belgium.* It is not the machine we beg attention to. Excepting its prodigious size, there is nothing new or striking in it; and modifications and improvements will suggest themselves to many; but it is "side mine," the notion of pumping air from the workings instead of forcing it into the mine, that we think so admirable.

The machine may be viewed as consisting of two large chests, eight

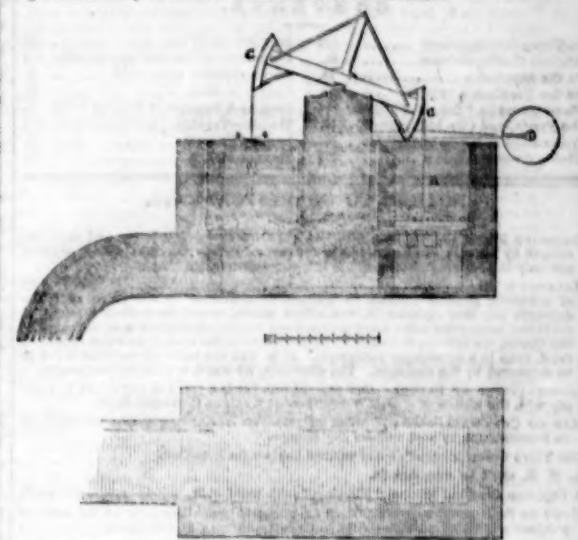
feet and a half square, wherein pistons with flaps or valves are made to act, as in ordinary pumps. With a six and a half foot stroke this machine draws near 1,000 cubic feet per double stroke.

For this idea of pumping immense volumes of air from mines we are indebted to one Gerard, a Belgian miner; and the sketch of the machine represents that which is set up at the mine de L'Esperance, at Seraing, by M. Leon Symonis, of Verviers.

"Necessity is the mother of invention," it is said, but to chance we are often much indebted. Davy, Upton, and Ryan, turned their best attention to devising means of ventilating mines, but the simple notion adopted by the Belgian miner escaped their research.

Mr. Symonis thus writes of the efficiency of the machine at Seraing:—

"The effect of this machine is such at the greatest depths, that the miners are obliged to wear double clothing to protect themselves from the cold. The machine of Seraing pumps 500 cubic metres per minute, or 17,600 cubic feet. Six horse-power are required to keep it in motion. An earnest desire that the principle of the machine may be of general service, and especially that the miner's terror, the fire-damp, may yet become 'un feu public,' a forgotten calamity induces me to make this communication."



DESCRIPTION OF THE MACHINE.

A brick culvert A connects the top of the shaft with the pump, where it communicates with both chest B B, through the double valves in the bottom C C, C' C', D D, D' D'. The pistons of these chests, with double valves in them. The pistons, as usual, are fitted so as to play up and down in the chests. The valves, or flaps, are made as large as possible; and there are attached to them an ingenious system of weight, as well to limit their opening, as to close them more expeditiously at the return stroke.

The piston rods are attached by chains to the arched heads of the beam G G, the axle of which is supported on a pier of masonry. It is put in motion by a lever L, connected by a rod to the crank of a six-horse power engine.

The constant current induced by the alternate action of the two pistons is analogous to the continuous stream, which observation proves takes place in a well-constructed double acting water-pump.

Thames Tunnel, March 23, 1836.

M. J. BRUNEL.

N. B.—Exhaustion may be effected from a distance of several miles, even through very small pipes; consequently, a draft is created, which is the great desideratum. If any engineer is disposed to go over to Belgium, Mr. Brunel will furnish him with letters to the proprietors of the mine of Seraing.

* Mr. Hague's (of London) valuable invention, the Pneumatic Engine, is available for drawing air from mines in particular situations. That is, when a power cylinder is placed within a mine, the induction pipe may be employed as a ventilator for extracting foul air from the neighbouring workings.

WEST CORK MINING COMPANY.

SIR,—I find in your paper of last Saturday a letter addressed to you by a Shareholder respecting the West Cork Mining Company, recommending a committee to be formed out of the body of the shareholders. In reply, I beg to say that I have made a mineralogical survey of their lands in Ireland, and am well acquainted with other matters which are of great importance to every shareholder; and I would strongly recommend that no time be lost in calling the shareholders together, and appointing a committee of inquiry, which can be done agreeable to the Act of Parliament. I am, Sir, your obedient servant.

London, March 31. J. R. BAREWELL, C. E. & AG.

DUKE OF CORNWALL'S HARBOUR AND VICTORIA RAILWAY.

SIR,—I have just perused a prospectus of the Duke of Cornwall's Harbour and Launceston and Victoria Railway, patronised by Royalty and right honourables, which circumstance may tend to facilitate the raising of the capital, but cannot increase the profits; and this it is, you will allow, which most concerns the public; at least that portion of it which looks at the undertaking as a medium for a *bona fide* investment.

If the promoters of the line are desirous that it should prove a national benefit, I would take the liberty of suggesting a *Ship Canal* (with a railroad, if deemed necessary, on one side of it) from the contemplated harbour to Launceston; from which latter place to Plymouth there is, I believe, a water communication. Vessels might then, in stress of weather, not only take shelter in the harbour, but proceed on to Plymouth, thus avoiding the dangerous passage round the Land's-end. Independently of the great sacrifice of life and property which is constantly taking place on the coast of Cornwall, more particularly in the winter season, the saving in time would alone be a sufficient inducement for coasting vessels to pass through the canal, the tolls arising from which would prove a source of great emolument. It is computed that the expenditure incurred in navigating round the Land's-end so far exceeds the tonnage which it might be necessary to impose on vessels passing through the canal, as to make it a matter of certainty that more than one-half of the tonnage passing round the Land's-end—which is upwards of a million of tons annually—would pass through the canal; and thereby avoid all the delays, dangers, and, in time of war, the risks attendant on the passage by sea.

Should you deem these hints worthy the consideration of those most interested in the success of this undertaking, perhaps you will make some use of them. Congratulating you on the success of your very useful publication, I remain, yours obediently, A CONSTANT READER.

March 31.

DUKE OF CORNWALL'S HARBOUR.

MR. EDITOR,—Being a weekly reader of your intelligent and interesting *Mining Journal*, I have this evening taken it up to read, and have advanced so far as your remarks on the projected railway on the north coast of this county; and from the very condescending manner with which his Majesty has lent his name to patronise it, and others of his illustrious house, with a host of respectable names attached, I am really sorry to differ in opinion from them; but when I see that such numbers as you state are in quest of shares, I could read no further, but have taken my pen to endeavour, at the least, to set you right. As you have in your leading article always an eye to *caution* and *truth*, here I will take my stand, and boldly assert that the statements made by these projectors in their advertisement and prospectus are ALL WRONG, as they cannot realise one word of it.

In the first place, their principal revenue is to be on *sea sand*; they have none, nor can they get it, (unless by assays,) at a less expense than 2s. 6d. per ton; and that from Padstow, a distance of *seven leagues*.

Secondly,—Limestone they must get from Plymouth.

Thirdly,—Culm, as well as the former, they must have; the key of the weather to enter the bay; the sea constantly breaking a mile off the shore, if the wind is at all to the westward; and no *quarries* will dare to approach in a gale who know it; consequently their *source* from tonnage are also done away with.

Fourthly,—Bark carriage; one little mangrove mine, yielding *five* tons per month.

A SERIOUSMAN.

WEST WHEEL HOVE MINING COMPANY.—The applications for Shares in this Company have been so very numerous, that it will not be possible to issue any Letters of Allotment earlier than Saturday next, the 9th day of April.

EAST WHEEL FANNY MINE, CORNWALL.—A GENERAL MEETING of the Adventurers in the above Mine will be held at the General Wolfe Inn, St. Austell, on THURSDAY, the 14th of APRIL, at Three o'clock in the afternoon.

MEETINGS OF SCIENTIFIC BODIES IN THE ENSUING WEEK.

SOCIETY.	PLACE OF MEETING.	DAY.	HOOR.
Society of Arts	Adelphi	Wednesday	8 p.m.
London Institution	Finchley Circus	Wednesday	7 p.m.
Royal Astronomical	Somerset House	Friday	8 p.m.

CONTENTS.

Parliamentary Summary	110	Accidents in Mines	113
Original Correspondence	110	Instruction of the Mining Classes	114
On the Stannaries	110	Mining District of St. Just	115
On the Ventilation of Mines	110	Society of Arts	115
Observations on "School of Mines"	112	Cavities & Fissures in Mineral Veins	115
The Funds, and City Intelligence	112	Timber—Vegetable Decomposition	115
Proceedings of Public Companies	112	London Gazette	115
Mining Correspondence	113	Tabular Matter	115

NOTICES TO CORRESPONDENTS.

PRICES OF METALS.—We have received our Correspondent's letter, and shall feel obliged by his aid; as also friends in the several metals markets; we are anxious not only to be correct, but to quote the prices generally.

MALACHY S. DEYONFORT TELEGRAPH.—We did not deem the report furnished us of sufficient general interest to warrant its insertion. It was a case of libel—damages \$1. Our opinion is, the action should never have been brought, it could not render the mine more productive; and the depreciation of the value of the shares, we believe, is rather to be attributed to the non-declaration of a dividend, than to a newspaper paragraph. It is well the value of the mine is not to be measured by the damages. The accounts, we learn, are highly favourable.

ILLUSTRATIONS OF PAPERS.—Our present number is a proof of our desire to comply with the wishes of several Subscribers and valued Correspondents.

MAP OF CORNWALL.—We still await information: our arrangements are made for its transmission by post without any charge.

OUR TRURO CORRESPONDENT'S letter arrived too late for insertion.

L. N. R. shall be attended to.

A Paper on Practical Mining "Plating," with wood-cuts, will appear in our next.

HOURS OF PUBLICATION.—An accident on going to press has delayed the hour of publication this week.—12, Gough-square, Saturday, 4 past 3 o'clock.

THE MINING JOURNAL, And Commercial Gazette.

LONDON, APRIL 2, 1836.

We have again this week resumed our extracts from the evidence adduced before the Committee of the House of Commons on Accidents in Mines, and regret, so far as the importance of the subject is considered, that other matter should have precluded its earlier insertion. The necessity, we may say, of a "School of Mines" cannot be more strongly evidenced than by the extracts we have occasionally made, illustrating as they do the frequent loss of life arising from want of scientific knowledge on the part of the practical miner, and the dangers to which he is subjected from not exercising that caution which such information would naturally induce him to observe. In our last we inserted a communication from Mr. ABBOTT on the subject of a Mining College;—in the present number will be found one from an intelligent and valued correspondent on the "Diffusion of Knowledge among the Mining Classes;" as also a paper by Mr. Brunel on the "Ventilation of Mines," while our advertising columns refer to a proposed institution for "Local Hospitals;" and next week we propose giving the views of JOHN TAYLOR, Esq., to which we have already adverted, and which will be found at length in the "Records of Mining." We might also add, that the agitation of the question (although not originating with, yet revived by us), from notice being directed to the subject in our remarks in the MINING JOURNAL, has also attracted the attention of parties connected with the county of Cornwall:—the object of "one and all" being to promote the interests and the comforts of the practical miner.

It is then natural that we should recur to a subject of so much importance, and one in which we feel so much interest as that of the establishment of a "School of Mines." We have not been idle—many promises of support, and those zealous and sincere, have been proffered; while many prejudices have had to be contended with, not only from agents (influential, although, we are happy to say, few in number) who have been "raised from the ranks," but also from others where jealousy, more especially in matters of science, should not exist.

The institution we are ready to support is one of a national character: already have we been assured of that patronage which must ensure its success—already have we promises of pecuniary aid, we would say almost sufficient to warrant the undertaking; but it requires more than patronage, and the material, so far as pecuniary matters are concerned;—it requires the zealous co-operation of practical and scientific men: it wants the helping-hand of those adequate to the task to carry into effect the practical details, so as to render the institution serviceable to the community at large; to be not only a "School of Mines," but one which shall comprehend Geology, Mineralogy, Metallurgy, Mechanics, &c., as among its primary objects. Let then those who acquire their knowledge from the operations of the practical miner, as well as the adventurer who derives his pecuniary advantages from the same source, come forward and afford their aid in carrying into effect that most desirable object, the establishment of a School of Mines—not confined to Cornwall, but having its head department in London, following in the wake of the Geological Society, Society of Arts, &c., with its local branch schools in the several mining districts.

It will be our province, ere another month elapse, to communicate by circular with several influential parties; and we trust sincerely, that the day is not far distant when we shall be able to report the proceedings of a public meeting to effect this desired end, and to congratulate our readers and ourselves on the successful issue which shall have attended our labours.

We cannot but again caution our readers on the several projects to which the Railway-phobia have given rise. The numerous prospectuses to which publicity is given through the London and provincial press, should, we think, be sufficient to guard those who

have capital to invest, or at least to induce them carefully to investigate the merits of the adventures in which they are about to embark, whether they be Railway, Bank, or Iron Companies; for each of them requires cautious investigation:—so numerous are the schemes, and so anxious are the projectors to carry into effect their objects without loss of time, conscious as they are that the "game cannot last long."

We would recommend that before parties invest their money, they would look over the advertising columns of the *Times*, *Herald*, *Chronicle*, and other papers, and make out an account for their guidance of the extent of proposed speculation; let them afterwards ask themselves, will the whole of the capital be raised? or, going further, is it even contemplated by the projectors, (whose object is served by the premiums) that it ever would be? and then, again, will they inquire or reflect as to the cause of all the splendid advantages to be derived from the Companies formed in 1836, never having attracted the notice of the mercantile and monied interests until the present day.

"The ides of March" are gone, but 1825 is still in the recollection of thousands.

In conclusion, we would only direct attention to a Correspondent's Letter on the proceedings of the West Cork Mining Company. We fear there is something "rotten in the state of Denmark," but possibly not to the extent of several of the Companies of the present day; with the many of which the cost of advertising is even too heavy a charge on the proprietors, without advert to salaries of Directors, Home Establishment, Engineers, Solicitors, &c.—JOBS! JOBS!!

The mines of Ireland have of late assumed so important a position in the ticketing paper, of the sales of ores, at Swansea, that it is with pleasure we advert to the circumstance, as it must be gratifying to all, whether embarked in mining adventures or otherwise, to learn that the mineral products of the sister isle are daily developing their riches, affording employment to thousands, who otherwise must, in all probability, be in a state of starvation, and giving to trade in the vicinity of the mines that impetus which Ireland so much requires. It is pleasing to find English enterprise and Irish industry thus combined, yielding as they do, in most cases where prudent management is pursued, returns amply remunerative to the capitalist, and of advantage to the peasant.

THE FUNDS

CITY—THURSDAY EVENING.

The British Funds have continued steady during the week. On Monday Consols advanced $\frac{1}{2}$ per cent., and closed on that day at 91 $\frac{1}{2}$ for money, 91 $\frac{1}{2}$ for account. On Wednesday and Thursday there was a greater pressure for money than for some days previous, which had the effect of occasioning a trifling decline. Consols left off at 91 $\frac{1}{2}$ for money, 91 $\frac{1}{2}$ for account.

Considerable variations have taken place in the price of Spanish Bonds, from the numerous speculative opinions of the public as to the issue of the present contest; the proposed scheme of a loan for Don Carlos has had a trifling effect, with the advices from Madrid of the movements there, while some anxiety is manifested as to the present Government sustaining its ground.

Thursday was the settling day in the Foreign House. The account, as was anticipated, passed off without the slightest difficulty.

The Share Market has throughout the week been firm in some of the newly-formed companies for Railways, but otherwise there has been but little variation in the quotations of prices.

Consols closed at 91 $\frac{1}{2}$ for money, and 91 $\frac{1}{2}$ for account; New Three-and-a-Half per Cent. Annuities 100 a £; Bank Stock 219 $\frac{1}{2}$ for the opening. Spanish Bonds 44 $\frac{1}{2}$ for money, and 44 $\frac{1}{2}$ for time; Passive Bonds 13 $\frac{1}{2}$ a 14 $\frac{1}{2}$; and Deferred 20 $\frac{1}{2}$; Portuguese New Bonds 79 $\frac{1}{2}$ a 80; and the Three per Cents. 50 $\frac{1}{2}$ a 51; Colombian Bonds 32 $\frac{1}{2}$ a 33; and Mexican 36; Danish Bonds 76 ex div.; Dutch Stock 56 a 57; and the Fives 103 $\frac{1}{2}$ a 104.

LATEST INTELLIGENCE.

CITY, SATURDAY, TWELVE O'CLOCK.

Consols for money closed at 91 $\frac{1}{2}$ for account they are 91 $\frac{1}{2}$; Exchequer Bills 18 20; East India Bonds 5 7. pm. Brazil, 65 $\frac{1}{2}$ 65. Spanish active Bonds, 45 $\frac{1}{2}$; Passive 14 $\frac{1}{2}$; Deferred 20 $\frac{1}{2}$. Colombia, 32 $\frac{1}{2}$ 33; Mexico, 35 $\frac{1}{2}$ 36.

RAILWAYS.—Brighton (Stephenson's) 14 $\frac{1}{2}$ to 15 $\frac{1}{2}$; Greenwich 94 to 104; Great Western 28 9; London and Birmingham 71 3; North Midland, 8 9; British Iron 38 9; London and Westminster Bank 4 $\frac{1}{2}$ 5.

POOL, March 31.—The average standard of this day is 1211. 14s.; average produce 74; average price 6l. 7s. 6d.; quantity of ore sold 3,003 tons; quantity of fine copper 227 tons 11 cwt.; total amount of sale 12,439l. 14s.

Dr. Bowring, M.P., with Mr. G. Thomas, and Capt. Pringle, R.N., have come to Paris, as a deputation, for the purpose of obtaining the co-operation of the French Government in a plan for uniting, by a grand railroad, the three capitals of France, England, and Belgium. It is understood that the Governments of all these countries look upon the project with the most kindly eyes, and are desirous of lending it their cordial support. When accomplished, the journey to London will be performed in 13 $\frac{1}{2}$ hours from Paris; in 11 $\frac{1}{2}$ hours from Brussels; and from Paris to Brussels in about seven hours.—*Galignani*.

ARCHITECTURAL COMPETITION.—In 1769, when the late Mr. Harrison, of Chester, was pursuing his studies at Rome, the architects were invited to deliver in designs for the Piazza di Santa Maria del Popolo. For this honour four candidates competed, and the Academy, after some time, adjudged the first prize to a pupil of Gianismare, and the second to Marini. But Piranesi protested against the decision, and obtained permission of the Pope that it should be reconsidered, and the merit of Mr. Harrison's design taken into account. These, with the others, were accordingly exhibited together, and a great concourse of persons were attracted to the place. After a little while, all with one accord declared the Englishman's design superior; and to this decision Clement XIV. gave his assent, in opposition to the former adjudication.

POWER OF THE SEA.—The stormy effects of the sea at the island of Barrahead, forming the southern extremity of the Lewis, or Long Island of the Highlands of Scotland, are truly astonishing; the lighthouse there is built upon a precipitous headland, measuring 640 feet in height; and yet, when the wind is in a western direction, the sprays fly in jets over the building. On the 1st of February, the sea rose upon the shores of the Lighthouse Island to an unexampled height; and with surprising force lifted, or partially moved, a great mass of granite, which Mr. Reid, the principal light-keeper, found to measure, on an average, twelve feet in length, eight feet in breadth, and eight feet in thickness; which, at the rate of thirteen cubic feet to the ton, is equal to no less than fifty-nine tons.—*Caledonian Mercury*.

ANTHRACITE COAL.—It is remarkable how much particular circumstances will alter and affect the prospects of commercial matters in a brief space of time. The port of Llanelly, in South Wales (although affording excellent accommodation and anchorage), has hitherto been a place of comparative unimportance; but within the last week the East Company have advertised for freight of 4,400 tons of coals to be shipped from the Llanelly Railway Company's Wet Dock; and the company having commenced laying down their railway, under the act obtained last session, through a district abounding with coal, iron ore, &c., a new outlet will be given to commerce in this quarter. The greatest activity, we find, is prevailing, and large quantities of produce shipped from this place for home consumption, the Indies, and the Colonies.—*Courier*.

PROCEEDINGS OF PUBLIC COMPANIES.

BOLIVAR MINING ASSOCIATION.

A general meeting of the proprietors of this association was held at their office, on Thursday last.

J. ROUTH, Esq., in the Chair.

The advertisement having been read, the chairman read the following report of the managing trustees.

REPORT.

The trustees have on the present occasion to communicate to the proprietors the particulars of their proceedings since the last annual report. The past year has not been unfavourable to the operations of the association, so far as regards the carriage of ore. By the setting in of the rains in May last the River Aroa became navigable by boats at an earlier period than in the previous year; and, in consequence, the agents were enabled to bring down to the coast a large quantity of ore, as the following comparative statement of the quantities carried for the two last years will show; viz. 1—brought down in 1834, 2,943 tons; in 1835, 3,734 tons; thus exhibiting an increase last year of 791 tons over the quantity in the preceding year.

Notwithstanding this increase, the quantity brought down during the year has fallen short of the expectations of the trustees, and they have reason to believe that a greater carriage might have been effected, had larger stocks been accumulated at the stations on the river during the dry season, in readiness for the boats; the river having been in a state to admit of a transport of from 500 to 850 tons per month, from the commencement of the rainy season.

The result, therefore, of the operations of the year ending the 31st of Dec. last, has been the shipment of twenty-two cargoes, consisting of 4,318 tons (including a stock of 714 tons on hand, on the 1st of January, 1835), of which eighteen cargoes, with 3,723 tons have arrived, and are brought to account in the accompanying statement of receipts and disbursements, leaving a stock in hand at the shipping port of about 130 tons. Of the vessels outstanding, one, the Cumberland with 200 tons, has arrived at Liverpool since the accounts were made up, and the others may be shortly expected.

It affords the trustees much satisfaction to state, that throughout the year the establishment has enjoyed good health, and has not been visited by a return of the drought and sickness which caused such serious loss and inconvenience to the association in the two previous years. Seeing the difficulties attending the transport of the ore, the trustees have for some time past directed their attention to the best means of obviating them, by endeavouring to establish a separate mode of conveyance, as well as devising measures for increasing the value of the ore, previous to dispatching it from the mines; and in these endeavours they have reason to hope they have not been unsuccessful. An agreement has been entered into with parties at Liverpool, for the carriage of the ore from the mines to the coast, at stipulated rates per ton, the particulars of which, and of the arrangement generally, were communicated to the proprietors at a special general meeting, convened for the purpose, on the 28th Nov. last. The advantages which the association will derive from this arrangement are very considerable. The transport and shipment of the ore will, in future, be a distinct and separate branch; thereby enabling the trustees to make a very great reduction in their establishment, and to confine their operations entirely to the working the mines, the effect of which will be a diminution of their expenditure on the other side to about 3,000l. per month, supposing the fusing into regulus to be continued, although it is probable it will be rendered unnecessary by a new process, which will be more particularly alluded to hereafter, but exclusive of the carriage of the ore (on the new arrangement), which will be paid in this country.

The attention of the trustees has also been frequently and anxiously directed, during the past year, to another question of paramount importance to the interest of the association; namely, the improvement of the quality of the ore. Various circumstances have led them to think, that proper care and judgment have not always been used in the selection of the ore at the mines; and so far as regards the quality during the two last years, this may in some measure be accounted for by the death of the assayer, which occurred in January 1834, and whose place was not adequately supplied until last summer, since which time, the trustees have reason to believe, that this essential branch of the business has received proper attention. With a view to further improvement in the quality of the ore, previous to dispatching it from the mines, the trustees, some time since, sent out persons properly qualified to accomplish this object, by fusing a portion of the poorer kind into regulus, of such a strength as would make the importation of it profitable. The requisite materials were sent out at the same time. The quantity of regulus made to the 31st Dec. last, is 153 tons, which, according to the last advices, was shipped on board the *Bootele*, and is said to be of a produce of forty per cent. or upwards. This vessel is daily expected to arrive. Further shipments of it will continue to be made, the means at command being equal to the production of seventy to eighty tons per month.

The facility with which the ore burns when set on fire in heaps, and which is the first operation it undergoes in fusing into regulus, occasioned experiments to be made at the smelting-works of the association at Ravenhead, with the view of confirming some trials which had been made at the mines by Capt. Carthew. These experiments led to the discovery, by Mr. Keys, the company's smelting superintendent, of a process, by which the produce of the ore can be raised fifteen to twenty per cent., at a very trifling expense. This process Mr. Keys offered to disclose for the benefit of the association, upon receiving an adequate remuneration, the terms of which the trustees arranged with that gentleman, and the same were afterwards communicated to the proprietors, and approved of by them, at the special general meeting of the 28th Nov., before alluded to. The particulars of the process were sent out to Mr. Ackers, the agent of the association, as well as Capt. Carthew, by the November packet, with directions to have it put into immediate operation at the mines; and it is stated in the last advices (received the 19th inst.), that the same was on the point of being carried into effect. Mr. Ackers, in his letter of 1st February, writes as follows:—"Captain Carthew is commencing on the new system; the experiments made completely establish it." From which it appears, that the same decided opinions of its success is entertained on the other side, as is held by those who witnessed the operation at Ravenhead.

The trustees have thus stated to the proprietors the principal objects which have engaged their attention during the past year. The separation of the carriage of the ore from the mining operations, will, they have every reason to believe, prove a very advantageous arrangement for the association. The ore will, in future, be brought down at a less cost than formerly, and it is expected in larger quantities; and the expenses of the association may henceforward be, in a great measure, defined. In addition to which, the new process for concentrating the ore, will enable the agent at the mines to bring into use a very large quantity of ore of inferior quality, which it would not be profitable to import into this country in its natural state, but which, after being so concentrated, will be greatly increased in value. And as the mine is capable of furnishing a supply of mineral to whatever extent may be required for the new process, the trustees anticipate the very best results to arise from it.

Mr. Ackers had proceeded to the establishment for the purpose of carrying the new arrangements into effect, which were to commence from the 1st of January last. Respecting the new process he writes as follows:—"I look forward with great satisfaction to the very splendid prospects the new discovery holds out, of realizing the best hopes to all interested in the success of the mines of Aroa." In a short time some of the ore which has undergone treatment by the process may be expected to arrive in this country; and, as every exertion will be made to effect as large a carriage as possible during the present year, the trustees hope the time is not far distant, when a great and decided improvement will take place in the affairs of the association, and the proprietors be rewarded for the liberal support and confidence they have so long given to the undertaking.

The trustees have only further to state, that the whole of the auxiliary shares have been placed, the liability on them having been reduced to 10l. per share, agreeably to the resolutions approved of at the special general meetings of 18th April and 20th May last.

STATEMENT OF RECEIPTS AND DISBURSEMENTS FROM 28TH MARCH, 1835, TO 25TH MARCH, 1836.

RECEIPTS.		DISBURSEMENTS.	
£.	s. d.	£.	s. d.
Balance	1,372 14 0	Agents' drafts	76,897 3 1
Sale of copper, 902 tons	77,747 8 6	Stores, passages and outlays	945 6 11
Advances on ore consigned	19,134 10 7	Home pay	5,427 3 11
Received of the Carrying Company for stock	5,000 0 0	Rent of mines, and arrears	4,842 3 5
Office expenses	1,619 14 5	Freight, smelting charges, &c.	1,619 14 5
Additional payments on auxiliary shares	19,285 0 0	Do	34,859 6 9
Fees on transfers	44 10 0	Debentures, Bonus, &c.	1,350 0 0
Ravenhead Smelting Works	8,122 10 3	400 auxiliary shares, in trust for Mr. Keys	1,350 0 0
		Balance	3,415 14 10
Total	431,006 13 4	Total	431,006 13 4

Note.—The ore shipped previous to the 31st of December, 1835, amounting to 855 tons, are not included in the above account.

It was moved, seconded, and carried unanimously, that the report be adopted, printed, and circulated. The meeting was respectably attended. The report gave evident satisfaction; and after thanks were voted to the chairman and trustees, the meeting adjourned.

THE COMBAMARTIN MINES, DEVON.

A meeting of the shareholders of the Combamartin Mining Company was held at Bevington's, Golden-lion Hotel, Barnstaple, on Tuesday last. Regulations for the future management of the concern were adopted. The proceedings appeared to give satisfaction to the proprietors assembled.

MINING CORRESPONDENCE.

ENGLISH MINES.

REDRUTH UNITED MINING COMPANY.

Wheal Ury, March 28, 1836.—The lode in the engine-shaft, since my last, is more promising, and produces about half a ton of copper ores per fathom. The lode in the thirty-two fathom level west of the engine-shaft continues large, and produces about one ton of copper ores per fathom. The lode in Cock's shaft continues large, but not rich at present, though the lode standing in the west end of this shaft, for three fathoms high, is worth about 20l. per fathom. The lode in the twenty fathom level west of Cock's is soft, and promising to produce copper ores, though not rich at present. The twenty-two and thirty-two fathoms level east of the engine continues to produce a small quantity of tin ores. The lode is large in the twelve fathom level east of Gooding's shaft, and promises to produce copper ores. The lode is large in the ten fathom level west of Cock's shaft, but not rich. We set a pitch on Friday last, back of the twenty fathom level west of Cock's shaft, at one-fifth tribute. At Clifh we have drained the mine to the twenty fathom level, which is the bottom level; and find it opened on the tin lode about fifty fathoms and a cross-cut driven south about forty fathoms, where a lode is cut and driven on near forty fathoms: these lodes are small, and not rich at present; there is likewise a cross-cut driven north at this level about ten fathoms, and no lode cut. At Backett's the branch is more promising, and produces good copper ores; and we have drained Buller's shaft about eight and a half fathoms under the adit level. **RALPH GOLDSWORTHY.**

NEW SOUTH HOVE MINING COMPANY.

March 26.—We have sunk in the new shaft this month seven fathom one foot eight inches; the water is quick, on account of so much rain. We have driven in the deep adit this month six fathom six feet ten inches, and the ground is favourable. We have driven in the shallow adit eight feet, and the lode is about one foot big, spotted with fine grain lead. This day I have let a winze to sink in the bottom of the level in the shallow adit. **JAMES WILLIAMS.**

NORTH CORNWALL MINING COMPANY.

March 26.—The seventeen fathom level east at Wheal Thomas is improved since we last reported to you. The ground has continued hard nearly all the week, but at present it is more favourable, and the lode is looking better, and we expect our next report of this level will be more favourable. No improvement in the west end. The winze is holed from the eighth to the seventeenth fathom level, which has supplied us with sufficient air; and we have sat two pitches to the west of the winze to seven men at 50s. per ton, and have set another next week to the east of the winze. The sumpmen at Wheal Thomas have made but little progress this week, in consequence of hard ground. The water-engine prevents any delay as regards the water. The eight fathom level is just as when we last reported, not rich; the eastern end at this level is now under George's shaft, and we expect to hole in the ensuing week. **JOHN BORELASE.**

Wheal Hope.—In the adit end the ground still continues moderate; the lode looks more promising, but not rich. The twelve fathom level looks well, and we fully expect more lead in this level soon. In the twenty-eight fathom level we have cut a kindly branch, but not rich. The thirty-eight fathom level we expect to be cleared in the course of a few days. Our plunger-lift answers remarkably well, and we have dropped our pumps this day to the fifty-eight fathom level, and we expect the water will be cleared from this level by Monday or Tuesday next. There has been but little lead broken this week at the seventeen fathom level. The tributaries at the eight fathom are breaking some lead, but it is rather a difficult thing to ascertain what is raised weekly. **JOHN BORELASE.**

EAST WHEAL STRAWEERY MINING COMPANY.

March 28.—Trentish copper lode at the fifteen fathom level south of Grou's shaft continues to be equally productive and promising as when I last wrote you; this lode is still very good in the seven fathom level, and in the pitches above it, and above the adit level. Notwithstanding the great scarcity of surface labourers to dress the ores, and the boisterous weather, we shall be able to sample a very good parcel of ores in about three weeks; but of this I shall be able to inform you with more certainty in my next report. **WM. PETHERICK.**

ST. HILARY MINING COMPANY.

Gwincar, March 26.—Our operations in Wheal Leeds are progressing in a very satisfactory manner. I am happy to state that by this day week, or, at farthest, in ten days' time, we shall have the new engine-shaft down, and be prepared to cut a pit at the thirty fathom level, so as to unwater all the workings from the twenty to the thirty fathom level; after cutting the pit we shall have only about a fathom to drive south to effect this, and then we shall not have more than ten fathoms to sink further to come down immediately on the ore bottoms. In driving south at the twenty fathom for the purpose of cutting the lode, and which, as I have before noticed, is all in whole from the twenty to the adit; in this end we have met with a small channel of elvins, about eighteen inches wide, which has retarded us a little, but we are now in fine killas ground. The new winch-shaft sinking to the twenty west of the new engine-shaft to ventilate and enable us to work that part of the mine with advantage, is proceeding in a very satisfactory manner, and with a speed I never anticipated—they are already down sixteen fathoms; this is important, as it will enable us to work more ground on tribute, which at present we are prevented from doing on account of the air. There is nothing new in the twenty end driving east; we have a floor of spar which, for the present, has disordered the lode. The tributaries will continue to work, and will make wages. **C. N. BEATER.**

CARN GREY MINING COMPANY.

At our deep adit we have cut through the lode to which we referred last week, and find it poor. The lode in Menae adit is not yet cut through, but we hope to report its size and quality next week. In driving our twenty-two fathom level west of the engine-shaft, we have come in contact with a large lode at the south part of the level, the size of which we have not yet ascertained; we hope to get the new stamps to work in the course of a few weeks. **RICHARD RODDA.**

BRITISH TIN MINING COMPANY.

Great Wheal Venture, March 28.—The middle lode in the back of the twelve fathom level is producing tin stuff much the same as last reported. Our two lower mills are stamping this work. The ground on the south part of this lode is much the same as last week; the lode is from eighteen inches to two feet big, tinny, but not rich. The ground in Fagan's east is harder; the lode is from three to four feet big, having a leader in it about one inch in size, carrying tin. The ground in Glow-hill end and lode is just the same as last reported. I stated in my last lode in the engine-shaft to be from three to four feet big, but we find the lode is still larger; another part of the lode is coming in the shaft, which will impede our progress in getting the shaft down so soon as I anticipated. We have done but little on Fagan's lode west for want of men. The lode here appears to be very large, not having any south wall. So soon as we can get men we shall cut it through. **J. BRAY.**

ROCHE ROCK MINING COMPANY.

March 28.—The several levels throughout the mine continue as they have been reported the last fortnight. We continue to have a full supply of tin stuff for the mills. The communicating Campbell's shaft with the levels east of the engine-shaft will, it is expected, still enable us to have an increased quantity. **J. TREBAILL.**

KERROW MINING COMPANY.

In consequence of an accident taking place in carrying up our girder over the gangway of the engine house, we have not been able to complete it, but there is no doubt but that we shall be quite ready for the castings, which we expect next month. **RICHARD RODDA.**

FERRAN CONSOLS MINING COMPANY.

March 28.—Having discovered a branch of the lode making to the south of Mudge's lode at adit level, between Mudge's winch-shaft and new engine-shaft, I put two men to drive south to cut it, which they did in about seven feet, and have raised more than three tons of lead; the branch is nine inches wide, of good quality. We are getting on well with our engine-house, and hope the masons will complete it in the ensuing week. **JAMES GRIFE.**

REDMOOR CONSOLS MINING COMPANY.

March 28.—The lead lode in the thirty fathom level north of Johnson's shaft during the past week has varied from nine to fifteen inches wide, and produced very good silver lead ores; it is now very promising and productive, composed of beautiful quartz, floukan, and of the ores already noticed. The thirty fathom level south on this lode is very kindly, but the ground has lately been a little harder than we have hitherto experienced. The twenty fathom level driving north on it is also very promising, the lode being very similar to what I have stated of it at the thirty fathom level. We have resumed the sinking of the engine-shaft below the twenty fathom level, in very good ground. **WM. PETHERICK.**

SOUTH WHEAL LEISURE MINING COMPANY.

March 26.—Having had a continuation of severe weather during the past week, has prevented the masons from completing the walls of the engine-house. At that part of this mine called Leadwear we have cleared up the old men's workings, a depth of about thirteen fathoms from surface, and in which are found three lodes: viz. a gossan, about three feet wide, inclining to the south two feet in a fathom, and its appearance may be considered of a promising nature, likely to produce copper in the event of its being prosecuted at a moderate depth; the other two are parallel tin lodes, with an inclination north, two feet in the fathom; at present, however, both are poor, but no doubt are deserving a more extensive trial. **R. ROWE, Jun.**

EAST CORNWALL SILVER MINING COMPANY.

March 28.—I have to inform you that every thing goes along regularly, as to keeping the water drained, &c., and that we are preparing for sinking the plunger lift, &c. We are clearing and repairing the various shafts, so as to

commence driving the levels and breaking away the backs; and I am satisfied that I shall have the pleasure (at no very distant period) of reporting to you that we are raising silver to an extent that will fully and amply meet our most sanguine expectations. Stainsby's shaft is sunk through to the adit level, and as soon as we have cut the pit we shall resume driving west on the lode. **JOSEPH MALACHY.**

TAMAR SILVER LEAD MINING COMPANY.

March 28.—The water is forked to the fifty-five fathom level, at which level we shall fix the Rose plunger lift forthwith. We have latterly found the shaft nearly full of timber, which, with having a great deal of ground to cut in the shaft, have greatly retarded our progress. We have reason to expect that we shall find the shaft comparatively clear under the fifty-five fathom level. From what we have seen of the lode which remains unwrought in various places between the adit and the forty-five fathom level (we have not yet examined the fifty-five fathom level), we are satisfied that none but the richer parts of the lode were worked between the levels. Indeed the tributaries worked under such disadvantages under the last company, and at such a rate of tribute (calculating it on the full market value of the ore); whereas they were paid on the value of the ore for lead only, without any allowance for silver, which constituted the greater part of its value, that they could have no interest in raising ores, which, to the present company will, from their superior means of working the mine, be very valuable. **T. PETHERICK.**

POLBREEN MINING COMPANY.

March 26.—To-day being our usual monthly setting, I beg to hand you the following particulars: viz.—At Stainsby's engine shaft we are below adit six fathoms four feet; the ground is still moderate, but the water is much increased, so much that we consider it advisable to suspend operations in sinking until the engine goes to work; in the interim the men will be employed in cutting cisterns, and other necessary arrangements for the pit-work. At Vice's shaft we can still manage the water, and hope it will not prove so abundant as to prevent our sinking previous to the machinery assisting us. In this shaft we are in a stratum of congealed ground, which, we believe, will prove productive, having at present several branches, containing rich work for tin, inclining towards the lode. Thomas's shaft, we expect, will be completed by the end of April to the deep adit. In the bottoms we are inundated with water, and, of course, obliged to suspend further proceedings until a communication is effected with Thomas's shaft to the deep adit; the same men, however, are employed to drive a level on the course of Wheal Harriet lode, between the shallow and deep adit levels, which we consider a desirable object. At the deep adit driving east, on the Wheal Harriet lode, its size is from nine inches to one foot wide, producing a little tin. In reference to our surface work, we are going on with as much dispatch as possible. **RICHARD ROWE, Jun.**

WEST WHEAL BROTHERS MINING COMPANY.

March 26.—The cross-cut at the twenty-fathom level at Lowe's silver shaft is driven five fathoms. We have cut the capel of the silver lode twenty-two inches thick, inclining south three feet in six, imbedded in a soft white killas, which is very congenial to silver ores. The water has been issuing fast from the end these few days past, therefore I have reason to believe the lode is near at hand. I am making preparations in erecting pulleys, &c., at the shaft that first intersected the silver lode, to resume driving the eleven fathom level east and west, where, I do not doubt, we shall meet with good bunches of silver, as the large and likely gossan near the surface, with the appearances of the ends, when the water obliged us to desist prosecuting them, showed strong symptoms of the lode being a very productive one. I set the twenty-three fathom level at Haurietta shaft to drive west on the course of the lode, at 4l. per fathom. I hope soon to be able to report very satisfactorily of the lode, as it looks kindly, and the old workings, some fifty to twenty fathoms to the west, denote that considerable quantities of tin ores must have been raised near the surface. **JAMES CARPENTER.**

March 29.—With pleasure I inform you the silver lode in the twenty fathom level at Lowe's shaft is intersected; it is fifteen inches wide, composed of spallons of iron, impregnated with silver and flucan, intermixed with pebbles of grey oxide. I should think, without the least exaggeration, it will produce 500 ounces of silver per ton. We shall not be able to drive either east or west very far this week, as the levels are to be put in, and Good-Friday near; however, all that is necessary to be done shall be put in operation, as I am of opinion, in extending the level, the lode will increase in size and quality. **JAMES CLYMO.**

CORNWALL GREAT UNITED MINES.

Eastern District, March 28.—Our main lode at Wheal Prosper is now eight feet wide, and very kindly, producing fine stones of tin towards the bottom part of the end, and appears to be improving every foot we drive. Our south lode is much the same as last reported. We have six men breaking tin stuff in the back of Wheal Prosper adit, and eight at Wheal Jenkin; they will break sufficient stuff to supply four times as many stamps as we have now working. We have not done any thing in Wheal Jenkin adit, and since we cut the cross-course, as our men here not being acquainted with timber ground, we were obliged to send west for men to drive that end; this morning they came. We hope to get another six-hand stamping mill ready to work in about a fortnight; other surface operations are going on as fast as the weather will admit of. We have a great fall of snow, which will impede our dressing the tin very much; however, we will do our best, and get on as fast as possible. The next parcel will be of superior quality to the parcel sold last. **JAMES CLYMO.**

March 28.—I beg to inform you that we have discovered Lyon's shaft in the ten fathom level, west of the western branch, and which now appears to be the chief part of the flucan, where it had been "heard" about nine feet. It contains tin, but as we have not yet had time to lay it open, we cannot say any thing more of it for the present. In driving south on the flucan, just where we expected to cut the first lode from Lyon's lode, we have, contrary to what reports led us to expect, holed to old workings, which is a strong proof that the old tinners must have had something good to induce them to sink so deep. We shall now commence clearing the dead, and hope to be able to see something of this lode in a few days; shall then go on driving to intersect Ward's lode. At Busworgie mine we have, in the south cross, cut in the adit level, intersected a small branch containing a little tin; we shall not work on it for the present, but shall continue the cross-cut to the great south lode, which is our principal object in driving. Mr. Sims intends to commence putting Hayle Consols engine together this week, and we hope to be well supplied with the castings, &c. from the foundry. **JAMES CLYMO.**

BRITISH COPPER MINING COMPANY.

Lucunston, March 29.—When I left home I desired the timber-men to inspect the mine with Captain H. Stephens, which I find they have done. Captain Henry says there is no alteration in the mine worth noticing, except in the forty-two, where the lode has increased in size, and is more promising than it has been for some time past. **ALBION MINING COMPANY.**

March 29.—The lode in the sixty fathom level east from cross-cut on the causer is two feet wide, and has a kindly appearance with ore, judging from the ore gone down under the forty-seven fathom level on this lode; we expect returns from this level. The lode in the forty-seven east on the causer still produces ore; we set the back and this end to drive on Saturday last, at 6s. 8d. in the pound; the takers to receive 3l. 10s. per fathom for driving the end three fathoms, as you will perceive by our setting report. The south lode at this level produces a little ore, but not rich. The lode in forty east and west from shaft is impregnated with ore throughout. The lode in the forty east on the causer is about twelve inches wide, producing about half a ton per fathom. With the exception of the above remarks, I cannot speak of any alteration in these mines since last week's report. **J. MIDDLETON.**

TEELIGH CONSOLS MINING COMPANY.

March 26.—The lode in the west end is three feet wide, and has a promising appearance; the men have driven six feet. In the west end, on the north lode, I have set two fathoms, at 40s. per fathom, just to see the nature of the lode in this part of the mine, which is all that can be done until we put up the winch. In the end on the north lode appearances continue good; the lode is ten inches wide, and the slope in the back of this level just as named in my last report; from these places we are daily breaking some good ore. In the south end the lode continues promising, although the ore part does not enlarge; the ground is good, and the men have extended six feet. Our shaft men are getting on with the pit at the ten fathom level, where I intend cross-cutting to see the north and south lodes, as soon as the engine goes to work. The men are just come up, and say the back of the level on the north lode is a foot wide, solid ore. **W. SINCOCK.**

FOREIGN MINES.

COLOMBIAN MINING ASSOCIATION.

Bogota, Jan. 11.—Remittance.—We have to advise you that we have remitted to-day's post, to be forwarded to you, per Packet from Cartagena, \$19,000 in Bogota doubloons. The remainder shall be forwarded by next week's post, to divide the risk. The returns from Mariano for November have netted \$19,937, in doubloons. **Jan. 20.**—Our object for the present is to hand you your account current for the past month, and the enclosed drafts on Liverpool, payable in London, for 800l., say in two bills of 400l. each. We should have remitted \$3,000, or \$4,000 more by this post, had not Mr. Williamson applied in the interval for an additional supply of funds. **Feb. 8.**—Herewith you will find bills of lading of a bag of doubloons, shipped per H. M. S. Corana, Capt. Hamilton, containing 4684 gold Colombian doubloons, equal to \$7,500; also first of exchange for 480l. ex. \$5 gold, per 2,400l., which in the commission 1 per cent. for receiving and forwarding, makes this sum received by us from Bogota, say \$10,000, for the purpose of being forwarded on account of Colombian Mining Association. **Mariano, Jan. 12.**—Returns for December, 81 lbs. 15 dwts. of fine gold, obtained from 1,155 tons of ore; stamped by 40l. heads; speed of 2100, 40

blows per minute; at the rate of 100 cwt. per diem; ore raised 1,109 tons.

Results.—Produce, per ton, of ore 174 dwts. fine gold; produce per stamp-head 23 oz. 19 dwts. ditto; concentration 6, 55; loss per cent. in the whole process 44, 01.

Jan. 19.—Average number of heads at work from Dec. 25, to date, 304; speed of ditto, 40 blows per minute; weather fine.

[Extracts from the reports and correspondence from the superintendent and Pamplona, will be given in our next number.]

ACCIDENTS IN MINES.—DAVY-LAMP.

EXAMINATION OF MR. GEORGE UPTON.

(Continued from No. 28.)

Will you name any other scientific gentleman that made experiments upon your lamp?—Mr. Partington, who is a professor of mechanical philosophy, and the author of the "British Cyclopaedia," and a number of other scientific works. He was at the time at the London Institution. He did not go into any very extensive series of experiments, for he appeared to see the principle at once, and was satisfied.

Can you name any other gentleman?—The next gentleman is Mr. Hemming; he is a lecturer of considerable repute. He made what is considered an improvement on Mr. Gurney's blow-pipe, which is now very much used at all the scientific institutions. I name that circumstance as a proof that he must be fully acquainted with the nature of gases.

Had he the opportunity of experimenting upon your lamp?—He had; he was acquainted with the experiments on the lamps by Mr. Pereira; soon after the publication of a small pamphlet on the subject of the Davy-lamp, he told Mr. Pereira, that he could not credit, to its full extent, what he heard, unless he saw the experiment himself; that he must have ocular demonstration, for he had seen the Davy-lamp tried so constantly at scientific institutions, and had himself tried it in all the ways described by Sir Humphrey Davy, which appeared all that were necessary to prove its working condition in coal mines; he therefore could not readily credit what appeared so very surprising. He came, by appointment, to try the Davy-lamp, and brought his own lamp; he was even so particular that he would not suffer it to go out of his hands till he had tried it himself. The effect was the same as described by Mr. Pereira.

He had previously conceived Sir Humphrey Davy's lamp to be a perfect protection?—Yes. The next gentleman I shall mention is, perhaps, the highest authority that I could give on a chemical subject, Dr. Turner, of the London University, who has published a work called "The Elements of Chemistry." He had been told of this circumstance by Mr. Hemming; he also doubted its correctness. He expressed a wish to experiment on the Davy-lamp and the new lamp. The new lamp was taken to him at the London University; he tried several experiments, and expressed much surprise at their result.

Are you now alluding to agitating the safety-lamp with a view to produce explosion?—Yes; he agitated the lamp in the way I have described in my own and Mr. Roberts's experiments; he brought an action from a bladder on one side the lamp, containing gas (carburetted hydrogen), and then a second action on the opposite side, by a bladder containing the same kind of gas. By putting a small degree of force on each bladder, the gas exuded on the lamp.

Was there much force used?—Not much; for he tried it to satisfy himself, and he was very particular in the mode in which he tried it.

Does it not appear that the gas, with the smallest pressure igniting the other stream of gas, would force the flame through the gauze on the opposite side?—The flame was forced through with common carburetted hydrogen, which is not so sensitive as hydrogen and atmospheric air, and nothing like so sensitive as oxy-hydrogen, which backs immediately. If the mouth of a bladder containing this gas were to be brought in contact with the wire-gauze of a lighted Davy-lamp, the flame would fly back and light the gas outside the gauze; but carburetted hydrogen appears generally to go through on the opposite side to that on which it has been injected.

And that seems to be the result of the experiment you describe, that the flame was blown through, and lighted the gas on the outside of the gauze?—Yes; I believe Dr. Turner has tried it nearly a dozen times. He has exhibited it at his lectures to his pupils in a variety of ways.

Then Dr. Turner's pupils have become acquainted with the fact, that under certain circumstances an explosive mixture will ignite outside of the Davy-lamp?—Yes; Dr. Birkbeck also tried the Davy-lamp in a lecture at the London Institution a short time back; he had previously tried it at his own house with the same result. During these trials the experiments have been exhibited on both lamps at the London Hospital, to a number of Mr. Pereira's pupils; there were perhaps 100 present. At the London University to a greater number of persons; the pupils are more numerous. Many persons connected with scientific pursuits, particularly chemical professors, were present on these occasions; they came to see what the experiments were; some made any objections to the mode of conducting them. The experiments on both lamps have been exhibited at the City of London several times, at the Mechanics' Institution, the Russell Institution, and lately at a scientific institution eastward.

In all those experiments you of course made use of fictitious gases, prepared for the purpose?—Yes.

Have you ever tried it with the carburetted hydrogen as evolved in the mines?—Yes.

Were the results similar to those which you have described?—They were similar as to the flame passing; but to my surprise, and to the surprise of the persons present, it passed much more quickly than carburetted hydrogen. The flame, instead of appearing to be the least inflammable of combustible gases, as far as could be judged by its effects upon the lamp, appeared to be quicker in its action in passing through the wire-gauze, which became heated to a white heat almost in an instant.

In that case you must have forced the current with a very strong impetus upon the gauze?—Not more than Mr. Roberts considered that a blow might force it. This experiment was tried in a coal mine near Dudley; there were at least twenty miners present.

That is, supposing it had been close to the blow?—Yes. I have omitted to mention one circumstance, which is perhaps material in this inquiry. A meeting in March, 1834, of about forty of the principal mine-owners of the county of Stafford, took place at the gas-works at West Bromwich, to witness experiments on the Davy-lamp and the new lamp; these gentlemen had heard with surprise that the Davy-lamp was an insecure instrument, and nothing but ocular demonstration would convince them of the truth of this assertion. As they had been apprised by letter of the purpose of the meeting several days previously, they were prepared with a number of lamps which they had been in the habit of using in the mines, as far as those lamps are used in Staffordshire, which is very limited. They had also a number of their men present; they were most of them persons of long experience in working coal mines. When they saw that some of their lamps would sustain the action of a jet of gas, they were much surprised, as the lamps had hitherto been considered safe.

Do you know whether any explosions have taken place in the neighbourhood to which you allude?—Several had taken place previously to this meeting.

Have any taken place subsequently?—I think I have read of one at Wednesday, but none of any material consequence.

From all those experiments, and assuming the fact that the damp found in the mines is still more explosive than the fictitious gases obtained by chemical preparation, you have come to the conclusion that Sir Humphrey Davy's lamp, under certain circumstances, is not a safe instrument?—I consider that Sir Humphrey Davy's lamp, in most of the uses which he recommends it for, and which uses have been sanctioned by several gentlemen of great experience, is extremely dangerous, and must lead occasionally to such catastrophes as those which have occurred lately at Springwell and Wallsend collieries.

And the only contingencies that you apprehend as likely to create danger in your own lamp, is the fracture of the glass and of the gauze, and the burning of the top of the lamp?—The burning of the top of the lamp I think impossible, from the experiments I have seen, and from the nature of the atmosphere at the top of the lamp.

Then the only contingencies are, the destruction of the lamp; that is to say, a fracture of the glass, and a fracture of the gauze?—Yes.

Do not you think that very much depends upon the size of the aperture at the top of the gauze?—No; the cap or cone immediately surrounding the wick has an opening at the top, and that circumference the size of the flame of the lamp, when filled with inflammable air. If that aperture be an inch in diameter, the flame would be an inch also in diameter; if it were half an inch, it would be half an inch only; and if it were two inches, the flame would be two inches. This is the only part of the lamp in which there need be any great exactness, and that exactness merely relates to having a proper space between the wire-gauze and the flame of the wick.

Supposing there were no glass at all, would not your lamp be equally safe with that aperture?—No; the lamp would then fill it with flame, as the Davy-lamp does.

The principle then is, that the supply either of atmospheric air, or combined with light carburetted hydrogen gas, is equal, and no more than adequate, for the supply of the wick?—No; that is not the principle which we have made the lamp upon; it might be regulated on such a principle, if necessary. The point which we have had in view, and which we have considered all that is necessary, is to make the aperture sufficiently large to let the air pass from the wick.

Supposing there were some difficulty in the current going under the flame, if the opening at the top were sufficiently large, might not another current go by the sides of the glass, while the current from the lamp went up the centre?—The lamp would go out in that case.

[To be continued.]

DIFFUSION OF KNOWLEDGE AMONG THE MINING CLASSES.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—The exertions you have directed to the establishment of a "School of Mines," not having yet produced the desired effect, however beneficial they may have been in awaking the public mind to the interest and importance of the subject, I am induced to send you some suggestions for promoting the spread of knowledge among the class for whom this Institution is proposed, and which may indeed serve in some measure to prepare them for its benefits, when the time for its establishment shall arrive.

Were the mining interest of Great Britain to take a correct and comprehensive view of its own position, this time would not, I apprehend, be far distant; for at no period more than the present has the necessity for the utmost skill, both scientific and practical, been so apparent in the mining establishments of this country. In proof of this, I need only adduce the enormous depth and increasing difficulties and expenses of many of our most productive mines, keeping pace as they continually are with the progressive development of the mineral resources of other countries (in many cases even assisted by British capital), which in the foreign market must of course come into immediate competition with our own mineral productions. At the present time the price of the metals is high, the mining interest generally is most prosperous, and the moderate sacrifice required could be made with comparative ease. It should also be remembered that even this prosperity must at this moment be giving equal impetus to the mines of foreign countries, and thus inducing a most formidable competition, against which we shall, at no distant period, have to stand our ground, with rivals in many respects more favourably situated than ourselves; for, while the mineral deposits of other countries are almost virgin, our own must necessarily be in some degree impoverished, after centuries of continued working. And where, except in increasing skill, both scientific as well as practical, applied with the utmost energy to all the varied and complicated details both of mining and metallurgical operations, can we hope for support in this contest? The subject is too important, however, to be thus briefly and hastily dismissed; and as I may shortly return to it again, I proceed at once to the principal object of this letter.

The paucity of works in the English language on mining, and subjects connected with it, must have been remarked by every one who has made inquiries on the subject; yet it does not appear that even these scattered sources of information have ever been concentrated and brought together with a view of benefiting the practical miner. My suggestion is therefore to form a small library of works of this class, in the office of every considerable mine, to be available for the reference of the agents, and also for the instruction of such working miners as might be desirous of benefiting themselves by this means of information; of course under such regulations as circumstances might render desirable.

In the following list I have noticed those works which occur to me at this moment as being most applicable to the object in view. The number might easily be swelled to a much greater extent, but the following I consider most important, and quite sufficient to form a *beginning*, which is perhaps the principal point, as other works might in time easily be added, if it was found desirable. The expense of the whole would not, I believe, exceed 20*l.*; a sum of very little importance to an extensive mine, compared with the advantages which might ultimately be anticipated. If, however, the cost was considered too great, the whole of the works named need not at once be purchased; and merely a few of the most valuable might first be selected. In mineral districts of minor importance, the necessary fund might be subscribed by several mines, and arrangements made by which each would obtain a proportional benefit.

MINING, &c.

Records of Mining, by John Taylor, Esq.—Mining Review.—Budget's Practical Miner's Guide.—Thomas's Report on the Mining District of Redruth, with the accompanying Plan and Sections.

Any other works of a similar local character.

CHEMISTRY, MINERALOGY, AND GEOLOGY.

Ure's Dictionary of Chemistry and Mineralogy.—Phillips's Mineralogy.—Berzelius on the Blow-pipe, translated by Mr. Childers.—Professor Phillips's Guide to Geology.—Conybeare and Phillips's Geology of England and Wales (a most valuable work, the concluding volume of which, as well as a new edition of the first, must be earnestly desired).

MATHEMATICS AND PRACTICAL MECHANICS.

Gregory's Mathematics for Practical Men.—Brunton's Compendium of Mechanics.—Emerson's Principles of Mechanics.—Tredgold on the Strength of Cast Iron.—Barlow on the Strength and Stress of Timber.—Tredgold on the Steam-Engine.—Sopwith's Treatise on Isometrical Drawing.

In reference to the above list I would observe, that in different mining districts it is very desirable that works of, in some measure, local interest, should be added. Thus, in Cornwall, the Transactions of the Geological Society of that county will be a work of considerable importance. In the iron districts of South Wales and Staffordshire, Mr. Farey's splendid work on the Steam-Engine would be particularly valuable, as the history of that machine, which is there so minutely traced, is closely connected with the present gigantic importance of our iron trade. In Cornwall, the great expense of that work might operate against its introduction, and Tredgold's, or some other, could be substituted.

In the lead districts of Derbyshire, Mr. Farey's Report would be valuable; and in the mining districts of the north of England, the various works of Mr. Sopwith and Mr. Westgarth Forster would, of course, be highly desirable. In the coal districts, the late valuable work of Mr. Mammatt should be added, as it contains perhaps the most accurate account that has yet been published of any of our coal-fields. In the mining districts of Ireland, the Mining Reports of Mr. Griffiths, on the coal formations of that country, might probably be desirable.

In addition to whatever works might be chosen, I should suggest the introduction of the best local geological maps that could be obtained, and also a good geological map of England and Wales, as showing the general connexion of mineral districts, both with each other and with the entire stratification of the country. For this purpose, the one lately published by Messrs. Walker might be advantageously selected.

I may observe, that the plan now proposed was suggested several years ago to some intelligent mine-owners in Cornwall, by whom it was entirely approved of; but I am not aware that any steps have ever been taken for carrying it into execution. When we consider the immense body of valuable and accurate information, on almost every subject interesting to the miner, which is contained in the few works I have enumerated, and at what a very trifling cost it may be rendered accessible to our mining population, we may reasonably hope that the plan I now beg to suggest, through the medium of the *Mining Journal*, will be shortly carried into effect in some of our great mines, as an easy and effectual method by which a portion of those advantages might at once be realised, which, on a far more extended scale, would flow from the establishment of a "School of Mines."

I am, Sir, yours, &c.

FREDERICK BURN.

New Road, March 28.

RAILWAYS.—THE ASKEW ARCH.—A very interesting lecture was delivered at the Royal Institution, on Friday se'night, by Mr. Charles Fox, one of the engineers on the London and Birmingham Railway, on the subject of oblique or askew arches. The construction of this species of arch has long engaged the attention of scientific and practical men; but it has acquired additional importance from the numerous instances in which it is found necessary, in forming a railway, to cross a road in an oblique direction, and from the strength required in the arches of a viaduct designed to sustain so heavy a pressure. Mr. Fox, who has built several arches of this description on the Birmingham line, contrived to render the subject both popular and amusing, by a number of beautiful drawings and models in illustration of his theory and practice. He treats the askew arch as composed of the threads of a square-threaded screw; and he exhibited the model of an arch forty feet span, and only two feet thick, made to scale, on this principle. The fact that this model will stand unsupported says much for the correctness of the principle. One of the models, being suffered to fall, showed that the thrust of the arch met the abutments in a proper direction. Mr. Fox has the merit, we believe, of being the first to unite mathematical accuracy with a simple method of executing the work. The lecture was well attended, and excited considerable interest.—*Patriot*.

WHEAL TOLGUS.—We are informed that a very fine course of ore has recently been discovered in this mine. It is, we understand, towards the western part of the set; and is said to be dipping in a westerly direction, which not only renders it valuable to its present possessors, but promises at a future day to be of some consequence to their neighbours, the West Wheal Tolyg adventurers.

ST. JUST.—ITS MINES AND MINERALS.

This parish is on the western shore of Cornwall, and is one of the most interesting in it. Its cliff scenery is of the boldest character; its ancient fortifications at Carnick Castle, circles of stones near Tregeant, and cromlech at Chuns, are of the highest value to the antiquary; whilst the junctions of various rocks, and the many rare and curious minerals it affords, have, in this respect, given it a pre-eminence over almost any spot in the kingdom of a like extent. The mines and minerals, with which we have now to do, are almost all comprised within a district of the north-western coast of not more than three miles long, and one mile and a half in breadth.

Of geological phenomena the junction of granite and slate may be well seen on the beach at Porth Just and Palladen Cove, and in the cliff at Pendeen Cove. Veins of granite penetrating the slate are visible at the same places, on the southern side of Nancherrow Vale, beneath Chyrcorash Carn, and in the heaps of rubbish at Botallack, Wheal Cock, Wheal Edward, and Balaswidden.

Of rarer minerals, bismuth and some of its ores have been found in Botallack and Levant; silver in Levant; iron ores in great variety in Botallack, Wheal Edward, Wheal Cock, Wheal Owls, Parknowth, &c.; cobalt in Botallack; pitch-blende and granite in Wheal Edward; adinite, horablenite, apatite, epidote, and jaspery iron ore, and chalcodony, in Wheal Cock; calc spar and arragonite in Levant; schorl in Botallack; opal in Wheal Maitland; prehnite, zeolite, and actynolite in Trehewallard Cliff. This list, which is long and minute enough to direct our readers, who may visit the parish, to these interesting substances, might be still further extended. Most of them may be procured from James Wall, a working-miner, residing at Carnyorth, to whom the country is indebted for the discovery of their existence here.

The Vale of Nancherrow extends inland from Polladen Cove, in about a south-easterly direction; and it has been very frequently observed that the "lodes" on the north of it dip towards the southward; whilst those on the south have a northerly underlie.

But the directions on the various veins are among the most remarkable features of this district; the metalliferous veins bearing from north-west and south-east to north and south, whilst the cross-veins here provincially denominated "guides," run about north-east and south-west, or not very different from the direction of the "lodes" in other parts of the county. The contents of the "guides" are much more productive of the ores of iron than the "cross-courses" in other districts; but, like them, their principal substance resembles the adjacent rock. Another not less remarkable fact is, that there are but a very few instances of a "lode" which has been cut off by a "guide" being honestly recognised on the opposite side; so that the "heave" of one vein by another, which in other parts of Cornwall occasions no uneasiness for the chance of re-discovery, is here of considerable moment and uncertainty; and from the very few instances of its successful solution, possibly may arise the circumstance of no index to the probable phenomenon being recognised. The hardness of the rock (country) probably contributes to this ignorance, as it also is an obstacle to the shafts being sunk perpendicularly, and to the extension of levels at right angles to the lodes (cross-cuts) for the discovery of parallel "branches." That the "backs" of most of the "lodes" have been discovered in shallow pits (costean pits), probably, is also due to the same cause.

The mines being almost all either in the slate (where it occurs, is seaward), or in the granite at no very great distance from the line of junction—many of the "levels" (galleries) are extended beneath the bed of the ocean, the adits usually opening, but so far above the sea level, as to be out of reach of the waves. The labourers descend to the entrance either by a zig-zag path, as at Levant, or by ladders on the face of the cliff, as formerly, at Botallack.

We have been in Little Bounds, Wheal Castle, Wheal Edward, Botallack, Wheal Cock, and Levant, and heard the roll of the waves overhead. In Little Bounds and Wheal Cock the excavations have been made into the sea; in the first, it being on the beach, and dry at low water, it was secured with well caulked planks; in the second, the hole made by a borer being but small, it was stopped by a plug. We have been in Wheal Cock during a storm, and when there was but three or four fathoms of rock between us and the water. Immediately beneath the beach the roar of the billows, as they broke on the shore, and the grinding of the pebbles against the beach and each other was deafening. Nor shall we soon forget our alarm lest the ocean should break through our slender protection. The miners themselves were somewhat afraid, although they still continued to work away the thin layer of ore which stood between them and the Atlantic. In following the "level" seaward, we soon got past and out of hearing the commotion on the shore. The noise, as we recede from the cliff, becoming more and more faint, until nothing of the "elemental war" is audible, but now and then a pebble rolling rapidly onward on the bed of the sea, projected by a more than commonly powerful wave.

The site of some of the steam-engines is highly picturesque. Most of our readers who have visited Penzance are conversant with the prints of the Crown's engine at Botallack; and the water-wheel which formerly worked at Little Bounds, has embellished many a pretty sketch of the Land's-End, Carreg Loox, and Cape Cornwall. The engines at Levant are in situations quite as wild and romantic—the spectator who may have descended to the adit's mouth near the sea level, almost shudders as he looks up at the engines, houses, and other appendages, seeming almost suspended over his head in the air.

Levant includes also the old mines of Zawnbriary and Boscregan; it is worked to 180 fathoms below the sea, both in slate and granite. It produces both copper and tin ores, the former in by far the greatest abundance. Notwithstanding it is worked beneath the sea, an engine of 24 inches cylinder draws all the water. Within a few years a profit of nearly 70,000*l.* has been realised in it, and the prospects are still very bright.

Wheal Cock, we believe that little is now done on the Cock or Hen lodes; but the Tolyen lode is worked to about ninety fathoms under the sea level, in slate, for copper. The water is drained by a pressure engine of ten inches pole, with a column of nearly forty fathoms.

Botallack was worked for many years, and the situation of its steam-engine near the base of the cliff, and within a few fathoms of the sea, was one of the sights of the west; it was worked to about 115 fathoms under the sea at the Crown's; at the Narrow it is about ninety fathoms under the adit; and at Noon Reeth about thirty fathoms. The adit at the Crown's is about ten, at the Narrow thirty-five, and at Noon Reeth twenty fathoms deep. It has produced abundance both of copper and tin ores. Its working is about to be resumed on an extensive scale. The two first are in slate, the junction occurring at the Narrow, the latter in granite.

Wheal Edward is worked both for copper and tin ores in slate, to the depth of sixty-five fathoms under the adit sea level, the adit being twenty-four fathoms deep. The drainage is effected by a steam-engine of twenty inch cylinder. Crank Codna, which appertains to the same mine, is twenty fathoms under the sea.

Boscan is worked in granite for tin, to a depth of forty fathoms under the adit in one shaft, and thirty fathoms in another; the engine of twenty-four inches cylinder drawing out of two shafts, the adit being fourteen fathoms deep. The concern is said to be a kindly one.

Besora is also worked for tin ore, in granite, to a depth of ten fathoms under the adit, which is thirty fathoms deep. The drainage being effected by a horse "whim." There is said to be a very good discovery recently.

Balaswidden engine is of twenty-four inches cylinder, and draws out of two shafts, one being eighteen fathoms, the other seventy-two fathoms deep. It is in granite, and worked for tin ore, although a very slight sprinkling of copper ore now and then occurs. The "lodes" of this mine at small depth were very numerous and very small (here called "Grys"), but rich; deeper, these unite in one vein of considerable size. The mine looks well.

Wheal Owls engine is of twenty-four inch cylinder, and drains the mine from three shafts; it is worked for tin ore, and is entirely in granite; one of the shafts is fifty-four, a second thirty, and the third twenty fathoms deep. The appearances are very favourable.

Spearu Moor is worked in granite, and affords copper ore; it is about forty-five fathoms deep, and is drained by a horse "whim." The prospects are very encouraging.

East Levant, formerly the Stennack, is drained by an engine of twenty inches cylinder, and is thirty fathoms under an adit of thirty fathoms deep. It is wrought for tin, and is in a granite. Report speaks extremely favourably of the indications.

Wheal Maitland, formerly Wheal London, Wheal Carn, &c., is on the same lodes at East Levant, and is also wrought for tin, in granite. The engine is of twenty-four inches cylinder, and draws out of three shafts, one of which is about thirty-three fathoms under adit, another ten fathoms, and a third about the same.

Boscaswell Downs is drained by an engine of 24 inches cylinder, and is worked for tin, in the granite, to a depth of about 166 fathoms. This is a mine of very long standing, and at intervals has given considerable profits. A late bunch gave the adventurers from 15,000*l.* to 20,000*l.*, and is still very productive. The Bill "lode," which is on the east, has been worked within a few years; and although now abandoned, is still a part of the concern.

The other mines in the parish are, Carnyorth Field, Packnowth, the Spearu, Wheal Bellon, and Wheal Canning, all worked for tin in granite, but now stopped; Wheal Hermon, a tin mine, in granite, lately suspended; Little Bounds, Wheal Cole, and the Prize, on the junction of the granite and slate, worked for tin; and Wheal Castle in slate, sometimes stopped. The Spearu is again about to be worked, an engine of twenty-four inches cylinder being erected; and Wheal Cole and the Prize are also to be resumed, a very powerful water-wheel being intended for their drainage.

Rather a striking peculiarity of the Saint Just tin mines, which are worked in granite is, that the water drawn by the engines is used for domestic purposes. We have seen fifty women washing the linen of their families in the warm water from the steam-engine at one time standing around the en-

gine-house; this occurs at Boscan and Boscaswell Downs and Wheal Owls, and we have also since seen it at Wheal Canning. It is rather a singular sight of a Monday morning to see the families hastening to the mines, bearing on their heads their washing trays, and the linen of their respective families.

In most of the other mining districts of Cornwall, the holes for blasting are "put down" by two men, one holding the "borer" whilst the other strikes it with his iron "mallet"; but in Saint Just one person uses both these tools, and bores his hole without assistance.

In this neighbourhood also, the "pick and gad" are less frequently used than in other parts of the county; the "picker and poker" being substituted for them.

The "picker" is a bar of iron tipped with steel, the part next the point being flattened, to perhaps about an inch wide and one-third or one-quarter of an inch thick, its length being adapted to the spot in which it is to be used. It is employed for removing the softer parts of the "lodes" or rock, in order to facilitate the operation of the gunpowder; and like the "borer," is applied with one hand, and struck with the other. The "poker" is used in the same manner, but on harder substances, and is simply a bar with a "gad" point.

As might be expected, the miners of this parish very much prefer their own tools and modes of working, which they say are peculiarly adapted to their "hard ground," to those in general use elsewhere; whilst others condemn them. On such a question our humble opinion is not worth recording.

The freehold of the parish is very much divided; but we believe the principal landowners are the Earl of Falmouth, T. J. Agar Robartes, Esq., Samuel Borlase, Esq., and the Rev. T. Robyns; John Batten, Esq., L. C. Daubuz, Esq., and James Halse, Esq., M. P., being the largest adventurers.—*West Briton*.

PROCEEDINGS OF SCIENTIFIC MEETINGS.

SOCIETY OF ARTS, ADELPHI.

March 26.—T. N. R. MORSON, Esq., in the Chair.

Improved Darcy-Lamp for Miners.

The committee of chemistry met this evening for the purpose of taking into consideration an improvement made by Mr. Newman upon the Darcy Safety-lamp, compared with those at present in use. Among the scientific gentlemen present we noticed Messrs. Solly, Deville, Varley, Moore, Rofe, Clement, &c. The chair being taken, the committee adjourned to Mr. Deville's manufactory in the Strand, and proceeded to make the requisite experiments to prove the advantage likely to arise from the use of the lamp in question. After a few preliminary experiments, the improved lamp was tried by different members of the committee as thought proper, by themselves, and as suggested by other gentlemen—the results were highly satisfactory.

In the next place, another lamp, constructed by the same gentleman, in which the meshes of the wire-gauze were considerably larger, was experimented with, and found, as partly anticipated by Mr. Newman, not to answer the intended purpose; in this case no previous experiments had been made by himself, and in now trying it there was no difficulty in producing explosion, by the admixture of atmospheric air and inflammable gas.

The improved lamp was, during the course of the experiments, placed in an enclosed apparatus, which might be said to represent a mine, where carburetted hydrogen was admitted by one jet, and atmospheric air by another; when the included air became sufficiently contaminated, the flame, in the first instance, became elongated, and would eventually have been extinguished. In order to prove the complete security of this improvement, the lamp, when the flame was just upon the point of expiring, was drawn out through an aperture at the top of the apparatus, but which might be closed at pleasure: the lamp being oscillated, to bring its internal atmosphere in union with the external, was immediately immersed in the atmosphere of what must be considered the artificial mine; the lamp, under this circumstance, caused no explosion, but immediately assumed its previous character. The lamp was again submitted to other experiments, such as allowing it to be in its perpendicular direction, and then trying the effect at different angles, in all which the committee were satisfied of its efficacy. In reference to what has been before remarked, we have only to add, that the improvement before us principally consists in the arrangement of an interior and exterior cylinder of wire-gauze; but it did not transpire, although very necessary to be known, what space should be preserved between these two cylinders. The other circumstances to be attended to are the size of wire used for making the gauze, the cavities of the meshes, and the distance from the top of the lamp to the top of the interior cylinder; in the present instance that space was about one inch and a half. It is to be observed, that as the interior gauze does not enclose the flame of the lamp, there is no additional obstruction to its illuminating power. We would strongly recommend this matter to the serious attention of every practical miner in the coal districts, as possibly affording a means of additional, if not of perfect, security to him in his operations.

CAVITIES, FISSURES, &c. IN MINERAL VEINS.

In prosecuting his operations, the miner not unfrequently meets with fissures or cavities, in Cornwall denominated *vugs*, both in the cross-courses and lodes. *Fissures* frequently occur between the mineral vein and the country; and, in some instances, the opening is some inches in width, and extends in various directions to a considerable distance from where it is first discovered. Cross-courses not unfrequently consist of fissures, for the most part; and even where this is not the case, their composition is generally such as to form a striking contrast to their neighbouring strata, and to allow of what in Cornwall is denominated *hulking*, i. e. being dug out speedily with a light pick, commonly called a *flang*. Small *vugs* are almost of every-day occurrence; and after the miner has laboured hard, and been at great expense to bore and blast a hole, his designs are frequently blasted by its bursting into a *vug*, and failing to burst that portion of rock for which it was intended. When this is the case, if the *vug* is large, he has to bore and blast the rock again, and is not unfrequently sadly puzzled how to conduct his operations so as to avoid bursting into the *vug* a second time. If the *vug* is a small one, a remedy is sometimes provided by *claying* the hole; that is, filling it with a remarkably tough sort of clay, through which a strong bar of iron is driven into the hole, which forces the clay into the *vug* so as to render the blasting practicable. If the *vug* lies at or near the bottom of the hole, it is in some cases filled with rubbish, and a part of the hole tamped up, so as to render the blasting of a part thereof practicable. These small *vugs* are often productive of serious accidents, as in charging the hole the powder is apt to run into them; and where the *vugs* or fissures are continuous, they lay a train in this way to the main charge; and if, in the course of tamping, the ramming bar strikes fire, it ignites the powder thus lodged in the *vug* or *vugs*, and a premature explosion takes place, to the all but certain destruction of the unfortunate miners. So that, what to a superficial observer would appear to accelerate the miner's progress, is not only the cause, in too many instances, of great let and hindrance, but of alarming and fatal accidents. Sometimes these *vugs* are of very large dimensions; so large indeed as almost to surpass belief, but that the fact of their existence is too well authenticated. In an early number we shall give a brief description of one of extraordinary size and character, discovered some time since in one of the principal mines of Cornwall.—N.

RAILROADS IN GERMANY.—The demand for shares, at Vienna, in the proposed iron railroad to Galicia, surpasses all expectation. The subscriptions already amounted to 18,000,000 of florins. As the expense is estimated at 12,000,000 only, it was not possible to accept all the offers. The banker, Baron Von Siza, has presented to the Emperor a plan for an iron railroad to go from Vienna to Gongo, below Raal, to be constructed at his expense, and to go by way of Odenburgh, and it is hoped that the Emperor will approve of the plan. If this railroad should be carried into effect, Gongo may become the staple place for the steam boats, as it has a fine harbour, and the current of the Danube from that place is rapid. In the general meeting of the shareholders in the iron railroad, at Nuremberg, it appeared that in the first quarter of a year just ended, 74,000 persons had made use of it, which produced a receipt of 10,000 florins. It appeared further that, taking the maximum of the receipt during the winter as the standard for the whole year, the dividend must be thirteen or fourteen per cent. The shares have, of course, risen still higher, and cannot now be had at 250 florins.—*Allgemeine Zeitung*.

CURIOS WAGER.—A singular wager was decided a few days since in a tavern at Gloucester, between a corn-dealer and a speculator in railway shares. The former, in the course of conversation, remarked, that if a farmer were to bring a barleycorn to market one week, double it the second, and so on for every succeeding week for twelve months, all the ships which ever entered the port of Gloucester would not be able to convey it. A laugh went round the room against the party, and of course a bet was proposed. The railway speculator, however, speedily found himself minus 10*l.*, the amount staked; for, on a calculation, it appeared that it would require 1,899,511 vessels, each capable of carrying 1,000 quarters of grain, to stow the whole of the barleycorns on the fifty-second week. The parties present, it is understood, each set about a more diligent study of Cocker.—*Sheffield Iris*.

TIMBER.

VEGETABLE DECOMPOSITION.—Wood is not equally liable to decay under all circumstances. When thoroughly dried it is not so quickly decomposed as when in its green state, for in the latter condition it has in itself all the elements of destruction, and it is scarcely possible to prevent the effect if it be then used in building. But supposing the timber to be perfectly seasoned, it is more liable to decay under some circumstances than in others. Timber is most durable when used in very dry places. Time, however, which decays all things but the thinking principle, affects the hardest wood even when employed in the most advantageous circumstance. Yet timber which has been used in places where it receives no other moisture than that which it absorbs from the atmosphere, has been known to last for seven or eight hundred years, though its elastic and cohesive powers are invariably injured. When timber is constantly exposed to the action of water, the decomposition effected will depend upon the nature and chemical composition of the substance. Vegetable matter is a compound, and an ingredient may be removed without destroying the whole. A portion of wood may be soluble in water, but other parts are not; so that after a definite period the continued action of water upon a piece of timber ceases, and if it can sustain the influence of this cause until that period, there is no termination to its endurance, except from those casualties which it might have been able to bear in its original state, but cannot after the removal of that portion of its substance soluble in water. Should a piece of timber that has been for a long time exposed to water be brought into the air and dried, it will become brittle and useless; this is usually the case with the timber taken from peat bogs, unless it should happen to be impregnated with some mineral substance that has stayed the action of the water. When wood is alternately exposed to the influence of dryness and moisture, it decays rapidly. It appears, from experiments that have been made, that after all the matter usually soluble in water has been removed, that a fresh maceration and contact of the air produces a state of matter in that which is left which renders it capable of solution. A piece of timber may then, in this manner, be more and more decomposed, until at last the whole mass is destroyed. The builder is sometimes compelled to use wood in places where it will be exposed to alternate dryness and moisture; fencing, weather boarding, and other works, are thus exposed. In all these cases he may anticipate the destructive process, and provide against it. The wood used in such situations should be thoroughly seasoned, and then painted or tarred, but, if it be painted when not thoroughly seasoned, the destruction will be hastened, for the evaporation of the contained vegetable juices is prevented. There is one other circumstance to be considered, the influence of moisture associated with heat. Within certain limits the decomposition resulting from moisture increases with the temperature. The access of the air is not absolutely necessary to the carrying on of this process, but water is; and as it goes on, carbonic acid gas and hydrogen gas are given off. The woody fibre itself is not free from this decomposition, for, as the carbonaceous matter is abstracted by fermentation, it becomes more susceptible of this change. This statement is proved by the circumstance, that, when quick lime is added to the moisture, the decomposition is accelerated, for it abstracts carbon. But the carbonate of lime produces no such effect; a practical lesson may be learnt from this fact; if timbers be bedded in mortar, decomposition must follow, for it is a long time before it can absorb sufficient carbonic acid to neutralize the effect, and the dampness which is collected by contact with the wet mortar increases the effect. When the wood and the lime are both in a dry state, no injury results, and it is well known that lime protects wood from worms. When the destructive process first becomes visible, it is by the swelling of the timber and the formation of a mould or fungus upon its surface. This fungus or cryptogamic plant rapidly increases, and soon covers over the whole surface of a piece of timber, having a white, greyish-white, or brownish hue. When the seeds of destruction are thus once sown, they cannot be readily eradicated; it need not therefore be a matter of surprise that many of the foreign woods used in this country have so little perpetuity, when the reader is informed, that the heat of the hold of the vessel in which they are brought is sufficient of itself to cover them with mould or mildew. Heat and moisture may be considered the prominent causes of the rapid decomposition of vegetable substances. When wood is completely and constantly covered with water, this effect is not produced; and we have an example in the fact, that, although those parts of a vessel which are subject to an occasional moisture are liable to dry rot, yet those parts which are constantly beneath the water are not even thus affected; and although the head of a pile, which may be now and then wetted by the casual rise of the tide, and is then dried again by the sun, may be decomposed, yet those parts which are always covered with water have been found in a solid state after centuries of emersion.—*Smeaton's Builders' Manual.*

[ADVERTISEMENT.]

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—As Chairman of the Cheltenham, Oxford, and London and Birmingham Union Railway, I have to request you to insert in your columns the following letter. I am, Sir, your obedient servant,
HATHERLEY-COURT, CHELTENHAM, PEARSON THOMPSON.
March 29, 1836.

"DEAR SIR,—Extracts from my evidence given before a Committee in the House of Lords, in support of the Great Western Railway Bill, having been published, with a view of proving that a line of Railway from Cheltenham to Oxford is altogether impracticable, I beg to state briefly the result of a survey which I have just made of the district in question. On leaving Cheltenham, the high ground by Swindon will be surmounted by two stationary engines, and by these means a level attained which would render the remainder of the distance to Oxford practicable for locomotive engines, and probably with gradients in no instance exceeding sixteen feet per mile. The country from Oxford to the London and Birmingham Railway, near Tring, presents no difficulty in reference to execution of the proposed line. The examination of the country which I have just completed, though it proves I had, in my former cursory survey, somewhat over-rated the difficulties, as far as a communication with Cheltenham was concerned, also demonstrates that in comparison with the proposed line from Gloucester to London, by way of Swindon, the advantage in point of distance is so considerable, as to render it a better route from Cheltenham to Oxford, and probably as eligible for locomotives as any that can be projected. The main objection to the route I have surveyed is clearly the stationary engine; but in comparing this with the line from Gloucester to Swindon, it is necessary to keep in view, that on it also a stationary engine must be employed, and not being situated at the termination of the line, it is found to present inconveniences not involved when that description of power is adopted as the terminus.

"I am, dear Sir, your obedient servant,"

"ROBERT STEPHENSON."

To Pearson Thompson, Esq., Chairman to the Cheltenham, Oxford, and London and Birmingham Union Railway."

METEOROLOGICAL JOURNAL, 1836.

Wind.	Thermometer.	Barometer.	March.	Thermometer.	Barometer.
Wind.	24 from 32 to 49	29.47 to 29.48	Monday 28	31 .. 47	29.56 .. 29.17
Wind.	25 .. 35 .. 47	29.47 .. 29.48	Tuesday 29	33 .. 45	29.45 .. 29.69
Wind.	26 .. 35 .. 47	29.47 .. 29.48	Wednesday 30	40 .. 52	29.47 .. 29.67
Wind.	27 .. 35 .. 47	29.47 .. 29.48	Thursday 31	40 .. 52	29.47 .. 29.67

Prevailing winds S. by W. and W. Except the 24th, and afternoon of the 25th, generally cloudy, with frequent and heavy showers of rain. Rain fallen, 2.6 in.

CHARLES HENRY ADAMS.

FROM THE LONDON GAZETTE.

Tuesday, March 29.

PARTNERSHIPS DISSOLVED.

Annott, jun., and T. B. Arnott, Upper Ground-street, Blackfriars, timber-merchants; Atkinson and Barwick, St. Mary-at-Hill, wine-merchants; Bennett, Betts, Exeter, common-carriers; Bates and Mann, Huntingdon, chemists; J. Burdall, Liverpool, painters; Bidden and Weeden, Kensal-green, Harrow, schoolmasters; Bruen and Dutton, St. Martin's-lane, Westminster, china-merchants; J. W. and T. Cross, Bristol, wire-workers; Dixon and Barnett, Birmingham, manufacturers; Howarth and Slater, Nether Knutsford, Cheshire, stationers; T. and R. H. Hartley, Thorn-Tree, Halifax, Yorkshire, manufacturers; so far as R. H. Hartley, Holden and Griffiths, Manchester, common brewers; and S. P. Hastings, Sussex, grocer, April 8, at twelve, at eleven, at the Bankruptcy Court, Attorney, Mr. Mansfield, John-street, London-street.

INSOLVENTS.

Mr. Green, Stamford-street, Blackfriars, agent.
Messrs. Martin and Benj. Ware, Great Tower-street, wholesale cheesemongers.
Edmund Witham, New Windsor, Berkshire, grocer.

BANKRUPTCY ENLARGED.

M. and A. M. Caldwell, Manor-hall, Little Chelsea, boarding-house-keepers.
Bankruptcy superseded.
Old Price, Llanwrthwl, Breconshire, cattle-dealer.

BANKRUPTS.

John Forbes, High-street, Shore-ditch, victualler, to surrender April 8, at one o'clock, at the Bankruptcy Court, Basinghall-street. Attorney, Mr. Green, London-street.
John Jones, Shore-ditch, linen-draper, April 8, at one, May 10, at eleven, at the Bankruptcy Court. Attorneys, Messrs. Ashurst and Gainsford, Chesapeake-street.
John Kinder, Little James-street, Gray's-inn-lane, coachmaker, April 8, at two o'clock, at the Bankruptcy Court. Attorney, Mr. Mansfield, John-street, London-street.
G. Lee, Hastings, Sussex, grocer, April 8, at twelve, May 10, at eleven, at the Bankruptcy Court. Attorney, Mr. Hunt, St. Mildred's Court, Poultry.
John Patterson, Lower John-street, Golden-square, tailor, April 8, at one, May 10, at eleven, at the Bankruptcy Court. Attorney, Mr. Hunt, St. Mildred's Court, Poultry.
John Smith, Circus, mercer, April 8, at twelve, May 10, at eleven, at the Bankruptcy Court. Attorney, Mr. Burns, Tottenham-court-road.

E. L. Ireland and J. C. Blyth, Birmingham, factors, April 7, at three, May 10, at one, at the Bankruptcy Court, Basinghall-street. Attorneys, Messrs. Adlington, Gregory, Fawcett, and Fleet-street, or Mr. Wills, Birmingham.
John C. Jackson, Burslem, Staffordshire, earthenware manufacturer, April 11, May 10, at eleven, at the Bankruptcy Court, Basinghall-street. Attorneys, Mr. Harding, Burslem; or Mr. Smith, Chancery-lane.
William Smith, Liverpool, butcher, April 20, May 10, at one, at the Bankruptcy Court, Basinghall-street. Attorneys, Mr. Mallaby, Liverpool; or Mr. Chester, Staple Inn.
Mary Tarrant, Clarence-street, Cheltenham, lodging-house-keeper, April 8, May 10, at one, at the Bankruptcy Court, Basinghall-street. Attorneys, Mr. Smith, Cheltenham; or Mr. Dicus, Falcon-court, Fleet-street.
William Weston, Bishop's Walkham, Southampton, auctioneer, April 12, May 10, at twelve, at the Bankruptcy Court, Basinghall-street. Attorneys, Mr. Artheridge, Hambledon, Hants; or Messrs. Holme, Frampton, and Loftus, New Inn.

DIVIDENDS.

J. Balman, Great Tower-street, City, porter and ale merchant, April 21.—J. Dodson, Great George-street, Bermondsey, merchant, April 21.—J. Deacon, Bermondsey, Oxford-street, upholsterer, April 21.—H. Dean, Fore-street, City, cheesemonger, April 21.—S. Dalby, Fleet-street, bootmaker, April 21.—T. Edwards, Hatton-garden, Holborn, tailor, April 20.—E. Frances, Loam-pit-hill, Lewisham, Kent, baker, April 21.—R. Hayday, Milk-street, silk-warehouseman, April 21.—W. Harper, New-street, Dorset-square, butcher, April 20.—W. Holmden, Milton, Kent, grocer, April 20.—C. Ingram, Salisbury, currier, April 21.—N. Ketcher, Bradwell near the Sea, Essex, shopkeeper, April 20.—M. A. Lewis, Norfolk-street, Strand, milliner, April 19.—E. Lloyd, Hatfield-street, Cavendish-square, bookkeeper, April 20.—J. Oldham, Friday-street, City, laceman, April 21.—W. Parker, Steel-yard, Upper Thames-street, lead-merchant, April 20.—W. Rowley, Great Queen-street, Lincoln's Inn-fields, saddler-ironmonger, April 20.—J. Thomas, Cole's-wharf, Thomas-street, Horsleydown, wharfinger, April 19.—B. A. Braine, Oxford, saddler, April 20, at the Bankruptcy Court, Basinghall-street. Attorneys, Mr. T. and J. Taylor, jun., Hedges, Holderness, Yorkshire, merchants, April 20, at the George Inn, Kingston-upon-Hull.—Fletcher and Co., Liverpool, bankers, May 8, at the George Inn, Liverpool.

CERTIFICATES to be granted, unless cause be shown to the contrary on or before April 19.

J. Atkins, Bridgewater-square, stationer.—J. Kerr, Manchester, merchant.—R. Martin, Sydenham, Kent, grocer.—H. Rich, Trinity-square, tea-broker.—T. Reeve, Whitechapel High-street, victualler.—A. Stuart, Strand, Eagle-court, Finch-lane, tailor.—J. T. and J. L. Stephensons, Brixington-quay, Yorkshire, wine-merchants.—S. Tufnell, York-street, Middlesex Hospital, miller.—R. Vervard, Bristol, flax-dresser.

Friday, April 1.

PARTNERSHIPS DISSOLVED.

R. Young and J. Burch, Milverton, Somersetshire, millers.—T. Rudkin and D. Rudkin, Leicester-shire, builders.—S. Marshall and D. Marshall, Sheffield, merchants.—T. Dotchin and J. Dotchin, Newcastle-upon-Tyne, joiners.—W. Wilson and A. Barton, Derby, brush-makers.—G. Euford, Tampton, and R. Ham, Stoke St. Mary, Somersetshire, dealers in hops.—E. Rose and J. Simpson, Liverpool, surgeons.—J. Pite and J. Starkey, Charles-street, Hatton-garden, general turners.—G. Tipper and B. Tipper, Queen-street, Cheapside, wholesale stationers.—W. Heley and J. Nalborough, Harwich, Essex, linen-draper; so far as regards W. Stanley.—T. Holmes and J. Holmes, Portwood, Cheshire, bobbin-makers.—S. Selvie, H. Lees, and J. Stanley, Dukinfield, Cheshire, coal-masters; so far as regards J. Stanley.—J. Bosworth, J. Manning, and M. O. Iron, patent brickmakers.—R. Cresswell and R. Satterfield, Manchester, lime-dealers.

BANKRUPTS.

Sarah Eliza Morgan, Craven-street, Strand, boarding-house-keeper, to surrender April 8, May 13, at the Bankruptcy Court. Solicitor, Mr. Clarke, Raymond-building; official assignee, Mr. Clark, St. Swin's-lane.
William Goodwin, Lock's-fields, Walworth, retailer of beer, April 8, May 13, at the Bankruptcy Court. Solicitor, Mr. Crouch, Bishop-square; official assignee, Mr. Johnson, Bishopsgate-street, London-street.
George Haylock, Bishopsgate-street, linen-draper, April 14, May 13, at the Bankruptcy Court. Solicitor, Mr. Jones, Size-lane; official assignee, Mr. Green, Abchurch-lane.

Thomas Luck, Lad-lane, dealer in lace, April 12, May 13, at the Bankruptcy Court. Solicitor, Mr. Lloyd, Chancery; official assignee, Mr. Green, Aldermanbury.
Daniel Bretherton, Manchester, horse-dealer, April 11, May 13, at the Commissioners' Rooms, Manchester. Solicitors, Mr. Bennett, Manchester, and Messrs. Abbott and Arney, Charlotte-street, Bedford-square.
John Taylor, Birmingham, victualler, April 11, May 13, at the New Royal Hotel, Birmingham. Solicitors, Mr. Haywood, Birmingham; and Mr. Bigg, Southampton-buildings.

DIVIDENDS.

April 28, R. W. Savage, Great Ryder-street, St. James's, dealer.—April 28, J. Crisp, Sydney-alley, Leicester-square, hosier.—April 28, M. Williams, Neath, Glamorganshire, linen-draper.—April 12, W. Richardson, King-street, Covent-garden, wine-merchant.—April 26, T. Livesey, sen., G. Livesey, J. Livesey, and T. Livesey, jun., Cowpe, Lancashire, woollen-manufacturers.—April 23, J. Hoyle, Manchester, victualler.—April 22, N. Fenwick, North Shields, common brewer.—April 25, F. Howe, Margate, hotel-keeper.—April 30, J. Igould, Dover, painter.

CERTIFICATES to be granted, unless cause be shown to the contrary on or before April 22.

T. Brown, Watling-street, merchant.—J. Hadley, Abingdon, Berkshire, hemp-manufacturer.
SCOTCH SUGAR-TRADE.
George Hill, Calderstone, merchant, April 12, 26, at Noke's Inn, Aldridge.

COMMERCIAL INTELLIGENCE.

THE COLONIAL MARKETS.—The market for British Plantation sugars, since Friday last, has been very inanimate, and the business done has been only to supply the immediate wants of the grocers and refiners. The importation since our last has been considerable, which has caused the effect of reducing the prices about 6d. to 1s. per cwt., notwithstanding strenuous efforts were made to support the price. The estimated sales of the week are about 700 hogs, and the lowest point of the market for dry brown sugars is 30s. 6d. to 30s., and the extreme for fine grocery sorts 60s. 6d. to 67s., good middling St. Vincent, St. Kitts, and Trinidad, brought 64s. to 65s.; brown Antigua 64s. to 65s. 6d. The market closed yesterday afternoon, and will not re-open till Wednesday next the 6th inst.

Mauritius.—The prices throughout the week have continued to decline, and the large quantities brought to public sale have gone off with very heavy, low browns went at 48s. to 55s.; good and fine ditto 60s. to 61s.; the fine yellow qualities 62s. to 65s. The stock in hand at the present time is 68,500 bags.
East India.—All kinds of native goods are held with much firmness by the importers, but were a good supply at market it would meet with a brisk sale at full rates; the demand is chiefly confined to the strong qualities. We have had some arrivals of Siams this week, which will shortly be brought to public auction.
Refined.—The demand for refined goods among the grocers has been considerable since Tuesday last, and fully last week's prices have been paid. For shipping goods the market is very quiet, and prices have given way; 42s. has been accepted for fine crushed; early in the week a parcel of fine Hamburg leaves sold at 42s. 6d. on board. The refiners hold very light stocks of refined goods. Strong brown tapers, single, 82s. to 85s.; single leaves 82s. to 85s.; double leaves 82s. to 85s. 6d.; patent Hamburg leaves 85s. 6d. to 94s.; double leaves 100s. to 105s.; British molasses 20s. to 21s.; B. P. West India 22s. to 23s.; the demand for green bastard sugars has been considerable, at from 52s. to 55s.

COFFEES.—The market for British Plantation coffees remains firm; the clean qualities are much inquired after, for which there has been a good demand by private contract; the supply at market of these kinds continues small. At public sale 84 bags of unclean Demeraras went at fully former rates, 90s. to 90s. 6d. for middling quality, the sales of East India were mostly confined to Ceylon, which were in demand by the grocers at 55s. to 56s.; 100 bags of Mocha, a favourite parcel, went at 2s. 6d. above previous rates; middling pale quality selling at 71s. to 72s. 6d. The transactions in the Foreign market were unimportant.

TEAS.—The arrival of new teas since our last are 10,343 chests, 1,670 half chests, 160 quarter chests, and 1,228 boxes; and the deliveries are again considerable, amounting to about 630,000 lbs.; the demand is very active, and a good business is doing at an advance of 1d. per lb. on the fine sorts of black and green teas. The quantity of free-trade tea announced for public sale on the 12th of this month has been further increased, it is now 45,000 packages, and 16,200 packages are advertised to follow the East India Company's June sale.
RICE.—The demand for Bengal rice is very considerable, and had there been a better supply at market, more business would have been done. The private sales this week exceed 2,000 bags, at 11s. 6d. to 12s. for low qualities; there is now nothing of ordinary quality to be had under 12s.; for a large parcel of good middling 15s. per cwt. was offered, but refused.

HOPS.—There continues a very brisk trade, and the late advance in prices is fully maintained; the market is now nearly cleared of the fine descriptions. Kent has 90s. to 112s.; East Kent pockets 110s. to 140s.; Sussex pockets 108s. to 110s.
TALLOW.—There is a very extensive demand for Peterborough yellow candle tallow for delivery in the last three months; speculators are the chief purchasers; prices have since this day week advanced 9d. per cwt.; 44s. to 44s. 3d. paid, and generally 45s. is now demanded; for parcels on the spot the demand is very moderate, still prices continue firm. At auction 107 casks of Odessa went at 42s. 6d. to 43s.; 90 casks of St. Petersburg went at 43s. for Y. C., and 40s. 6d. to 41s. 6d. for soap tallow.

METALS.—All kinds of English lead have advanced considerably in value, and there is a confined demand. Iron has undergone no change. Spelter has risen 1s., and a great deal done; 134 1/2s. paid on the spot, and 140s. per ton for delivery. For Spanish pig-lead the holders are asking 27 1/2s. per ton.

LIVERPOOL, MARCH 29, 1836.

COTTON.—The sales last week amounted to 22,440 bales; of which 6,500 were on speculation, and 600 for export. Egyptian advanced 1/4, and American 1/4 to 1/2. The sales, since, amount to 25,000 bales, at very irregular prices. The operations of speculators are extensive, and the prospect of advancing prices in the United States occasions the manufacturers here to purchase also with eagerness. The latest accounts from America show, that up to about the end of last month, 70,000 bales less had been received at the Gulf Ports, and 20,000 at those of the Atlantic coast, than at the same period last year; this is by many considered as a proof that the present crop will not, at all events, exceed the last; but it is to be recollected that the western rivers did not become generally navigable this season until some weeks later than last, and also that the fine picking weather has caused the planters to keep their land in the field a good deal, in order to secure the cotton; and this is another cause of a small receipt up to the present time, although ultimately it will ensure a much larger supply. There is no doubt that the great ease of the money market just at present assists the favourable progress of this great article, favourable rather to the American planters than to the healthy state and prosperity of our manufacturing interests. We quote, to-day, Fair Bowed 114, Perma 121, Egyptian 14, Surats 74; being an advance of 1/4 on American since Friday. Present stock 140,000 bales; of which 90,000 are American, and 50,000 East India. Last year, at this time, the total stock was about the same; but of American we then had 30,000 more, and of East India descriptions 15,000 less.

SUGAR.—Our market has not declined so much as in London; and this week the demand is much brisker. Sales of last week only 400 hogsheads; prices closing 6d. to 1s. lower than the week before.
CLOVER SEED.—Stock heavy: all the recent imports will be offered to-morrow at public auction.

CORN EXCHANGE, MARCH 30, 1836.

The arrival of Wheat since Monday has been very moderate, and what few fine samples of Wheat appeared to-day were taken off on rather better terms. Barley also is the turn of export, but in Beans and Peas we do not note any alteration in value, nor are Oats cheaper, though the trade on the whole is dull.

Wheat.	Barley.	Oats.	Rye.	Peas.	Beans.
40s. 3d.	32s. 6d.	22s. 9d.	—	—	—
41s. 3d.	33s. 6d.	23s. 9d.	—	—	—
42s. 3d.	34s. 6d.	24s. 9d.	—	—	—
43s. 3d.	35s. 6d.	25s. 9d.	—	—	—
44s. 3d.	36s. 6d.	26s. 9d.	—	—	—
45s. 3d.	37s. 6d.	27s. 9d.	—	—	—
46s. 3d.	38s. 6d.	28s. 9d.	—	—	—
47s. 3d.	39s. 6d.	29s. 9d.	—	—	—
48s. 3d.	40s. 6d.	30s. 9d.	—	—	—
49s. 3d.	41s. 6d.	31s. 9d.	—	—	—
50s. 3d.	42s. 6d.	32s. 9d.	—	—	—

FLOUR, per Sack.

Town made 42s. to 44s. Essex & Suffolk, on board 35s. to 36s. Seconda 38s. to 40s. Norfolk and Stockton 35s. to 36s.

Wheat.	Barley.	Oats.	Rye.	Peas.	Beans.
40s. 3d.	32s. 6d.	22s. 9d.	—	—	—
41s. 3d.	33s. 6d.	23s. 9d.	—	—	—
42s. 3d.	34s. 6d.	24s. 9d.	—	—	—
43s. 3d.	35s. 6d.	25s. 9d.	—	—	—
44s. 3d.	36s. 6d.	26s. 9d.	—	—	—
45s. 3d.	37s. 6d.	27s. 9d.	—	—	—
46s. 3d.	38s. 6d.	28s. 9d.	—	—	—
47s. 3d.	39s. 6d.	29s. 9d.	—	—	—
48s. 3d.	40s. 6d.	30s. 9d.	—	—	—
49s. 3d.	41s. 6d.	31s. 9d.	—	—	—
50s. 3d.	42s. 6d.	32s. 9d.	—	—	—

SMITHFIELD, FRIDAY, APRIL 1.

The number of sheep given to-day is 7,300, but of these unquestionably nearly half are lambs, and we are sorry to remark a great portion are too young, and not fit for market, arising probably from the short feed of turnips. The trade for the disposal of the best descriptions was good early in the morning, and they realised 7s. 6d. Many of the young lambs will doubtless be sent back. Mutton is not much in demand; the trade in beef is heavy; business is brisk for best Calves, at an advance of 2d.

To sink the offal—per 8lb.

Beef 3s. 6d. to 4s. 6d. Veal 6s. 6d. to 7s. 6d. 3s. 2d. Best Down & Polled Mutton 3s. 6d. to 4s. 6d. 3s. 6d. 3s. 6d. 3s. 6d. Head of Cattle this day—Beasts, 419. Sheep, 7,300. Calves, 220. Pigs, 253. Head of Cattle on Monday—Beasts, 2,550. Sheep, 14,500. Calves, 42. Pigs, 258.

NEWGATE AND LEADENHALL.—By the Carcase.

Beef 2s. 6d. to 3s. 6d. Veal 3s. 6d. to 4s. 6d. 3s. 6d. Mutton 3s. 6d. to 4s. 6d. 3s. 6d. 3s. 6d. 3s. 6d. Lamb, 6s. 6d. to 7s. 6d.

PURCHASES OF COPPER ORES AT TRURO,

MARCH 24, 1836.

Purchaser.	Min.	Yen.	Total.	Per Ton.	Shutout.	Total Amount.
No. 1. MINES	Consolidat. Mines	414	414	8 5 6	307 7 3	965 9 9
ROYAL CO.	Consolidat. Mines	73	73	6 15 6	369 2 6	965 9 9
2. ENGLISH	Consolidat. Mines	92	92	8 7 6	770 10 0	1031 10 0
COPPER CO.	Consolidat. Mines	88	88	10 8 0	958 3 0	1031 10 0
3. VIVIAN & SONS.	Consolidat. Mines	418	418	9 11 6	387 7 3	1031 10 0
4. FREEMAN & CO.	Consolidat. Mines	104	104	8 9 0	926 0 0	1031 10 0
5. P. GREEN & SONS.	Consolidat. Mines	104	104	8 9 0	926 0 0	1031 10 0
6. CROWN COPPER CO.	Consolidat. Mines	84	84	9 19 6	837 18 0	2014 16 0
7. NEWELL, SIMS, & CO.	Consolidat. Mines	109	109	8 10 0	909 10 0	967 11 6
8. WILLIAMS, FOSTER & CO.	Consolidat. Mines	394	394	8 5 6	402 7 3	3770 12 0
9. BERNARD, LOGAN AND CO.	Consolidat. Mines	42	42	1 11 6	47 18 0	3770 12 0
10. MESSRS. GLASCOTT AND CO.	Consolidat. Mines	42	42	1 11 6	47 18 0	3770 12 0
11. MESSRS. GLASCOTT AND CO.	Consolidat. Mines	42	42	1 11 6	47 18 0	3770 12 0
12. MESSRS. GLASCOTT AND CO.	Consolidat. Mines	42	42	1 11 6	47 18 0	3770 12 0
13. MESSRS. GLASCOTT AND CO.	Consolidat. Mines	42	42	1 11 6	47 18 0	3770 12 0
14. MESSRS. GLASCOTT AND CO.	Consolidat. Mines	42	42	1 11 6	47 18 0	3770 12 0
15. MESSRS. GLASCOTT AND CO.	Consolidat. Mines	42	42	1 11 6	47 18 0	3770 12 0
16. MESSRS. GLASCOTT AND CO.	Consolidat. Mines	42	42	1 11 6	47 18 0	3770 12 0
17. MESSRS. GLASCOTT AND CO.	Consolidat. Mines	42	42	1 11 6	47 18 0	3770 12

